

BOSTON
MEDICAL LIBRARY
ASSOCIATION.

Section..... Shelf.....

No.....

LOANED BY

Dr. D. H. Storer





Digitized by the Internet Archive
in 2012 with funding from

Open Knowledge Commons and the National Endowment for the Humanities



THE
NEW-ENGLAND JOURNAL

OF
MEDICINE AND SURGERY,

AND
Collateral Branches of Science.

CONDUCTED BY A NUMBER OF PHYSICIANS.

Vol. XII.

Homo naturæ minister et interpres tantum facit et intelligit, quantum de naturæ ordine, re vel mente, observaverit; nec amplius scit aut potest.

FRANCIS BACON.

THIRD SERIES, VOL. II.

BOSTON:

PUBLISHED BY WELLS AND LILLY.

.....

1823.

1825-1875

1875-1925

1925-1975



1875

1875-1925

1875-1925

1875

CONTENTS.

	PAGE.
Case of the renewal of two teeth at a late period of life. By T. W. Parsons, M. D. Surgeon-Dentist.	1
Fatal Case of vomiting of a chyle-like fluid. By Dr Lawrence Sprague,	4
Morbid Anatomy of the Vascular System with Red Blood,	7
Dr Hazeltine's reply to the Editors, &c.	15
An Address to the Boylston Medical Society of Harvard University, at the Annual Meeting in November, 1822. By E. Hale, jr. M. D.	113
Answer to Dr Hazeltine's Communication. By the Editors.	121
Clinical Remarks. No. III. By A. L. Peirson, M. D.	
On Injury of the Knee Joint,	129
Hæmorrhoidal Tumour,	130
Singultus,	131
On Erysipelas of the head treated by Bark. By George Parkman, M. D.	132
A case of Aneurism cured by ligature of the External Iliac Artery. By John C. Warren, M.D. [With a Plate.]	225
A case of Tubercles in both the chest and abdomen, terminated by hydrocephalus internus. By James Jackson, M.D.	230
Case of Apoplexy. By Charles G. Adams, M.D.	234
A case of Abortion, attended with flooding, in which the placenta was delivered by an instrument. By John Randall, M.D.	237
A case of Diseased Spleen ending fatally. By Dr John Gridley,	243
Case of Dropsy. By Stephen W. Williams, M.D.	247
Effects of an overdose of Tincture of Stramonium,	253
Report of a Committee of the Centre District of the Medical Society of New-Hampshire, on some recent cases of Colica Pictonum, in Concord, N. H.	255
A Case of Phlegmatia Dolens Puerperarum. By Edmund Porter, M.D.	258
Case of Phthisis Pulmonalis. By Henry S. Waterhouse, M.D.	261
Remarks upon the study of Pathology. By John Ware, M.D.	337
Cases in Morbid Anatomy. By J. Gorham, M.D.	344
Case of Syphilitic ulceration of the Larynx. By Walter Channing, jr. M.D.	350
Clinical Remarks. No. IV. By A. L. Peirson, M.D.	357
Case of Disease of the Knee Joint. By Samuel Webber, M.D.	361
Case of Hydrophobia, from the bite of a Raccoon. By George Russell, M.D.	363
Case of ruptured uterus. By J. Bigelow, M.D.	365

REVIEW.

Art. I.—A Dissertation on the Treatment of Morbid Local Affections of Nerves. By Joseph Swan. Member of the Royal College of Surgeons, &c.	23
Art. II.—A Treatise on Domestic Medicine, By Robert Thomas, M.D. &c. &c. Revised by David Hosack, M.D. &c. &c.	33
Art. III.—Essays on Surgery and Midwifery. By James Barlow, Surgeon,	40
Art. IV.—Medico-Chirurgical Transactions.	60
Art. V.—Observations on those Diseases of Females which are attended by Discharges. Illustrated by copper-plates of the diseases. By Charles M. Clarke,	135
Art. VI.—A Comparative View of the Sensorial and Nervous Systems in Man and Animals. By John C. Warren, M.D.	171
Art. VII.—A Letter to Charles Henry Parry, M.D. F.R.S. &c. &c. on the influence of artificial eruptions, in certain diseases incidental to the human body, with an inquiry respecting the probable advantages to be derived from further experiments. By Edward Jenner, Esq. M.D. L.L.D. F.R.S. M.N.T.F. &c.	265

Art. VIII.—A Treatise on Dislocations, and on Fractures of the Joints. By Sir Astley Cooper, Bart. F.R.S. Surgeon to the King, &c. &c.	275
Art. IX.—1. Saggio Clinico sull' Iodio, e sulle differenti sue Combinazioni e Preparazioni Farmaceutiche, &c. i.e. Clinical Essay on Iodine, and its different Combinations and Pharmaceutical Preparations; from Results obtained in the Clinical School of Padua, in 1820-1821. By Professor Brera.	
2. Observations on the remarkable Effects of Iodine in Bronchocele and Scrophula: being a Translation of three Memoirs published by J. R. Coindet, M.D. of Geneva.	295
Art. X.—Monographie des Dégénérationes Skirrheuses de l'Estomac, Fondée sur un grand nombre d'observations recueillies tant à la Clinique interne de l'Ecole de Médecine de Paris, qu'à l'Hôpital Cochin. Par Frederic Chardale, D.M.	368
Art. XI.—Report on the Yellow Fever which prevailed in New York in 1822. By Joseph Bayley, M.D. Health Officer of the port of New-York.	381
Art. XII.—Essays on Fevers and other medical subjects. By Thomas Miner, M.D. and William Tully, M.D.	387
Art. XIII.—A Treatise on Dislocations, and on Fractures of the Joints. By Sir Astley Cooper, Bart. F.R.S. Surgeon to the king, &c. &c.	415

ANALYSIS OF FOREIGN AND MEDICAL JOURNALS AND SELECTIONS.

Description of an instrument for the extirpation of the mouth and neck of the uterus, in cases of Carcinomatous or other Excrecences. By Dr Canella, of Riva di Trento,	74
Case of Habitual Cough, cured by a severe burn. By Thomas Ogden, Surgeon,	75
Mr Bacot's Remarks on the use of mercury in sloughing and phagedenic chancre, Memoir on Partial Tetanus. By Baron Larrey,	76
On the effects of an overdose of Digitalis. By Thomas M. Fogo, M.D.	77
Case of Purpura Hæmorrhagica. By George Johnston, M.D. &c. &c.	81
Acetate of Morphine,	83
Corrosive Sublimate,	84
Croup,	85
Bronchocele,	85, 86
Case of Disease in the Larynx mistaken for stricture of the Œsophagus. By John Shaw, Lecturer on Anatomy and Surgery,	86
Mr Broughton's Case of Lateral Curvature of the Spine.	87
On the Treatment of Carbuncle with Escharotics. By Robert Swallow, Staff Surgeon,	89
On the common syringe with a flexible tube as applicable to the removal of opium and other poisons from the stomach. By F. Bush, Surgeon,	90
Remarks on Mr Gilder's case of Vaccine Disease and measles existing at the same time in the same individual. By H.	91
Cases illustrating the decided efficacy of cold affusion in the treatment of poisoning from opium. By Septimus Wray, Esq.	91
A case of poisoning by opium, in which the cold affusion was successfully employed; with observations on the medical management of similar occurrences. By J. Copland, M.D. &c.	92
On the most efficacious means of remedying the effects of opium when taken in poisonous doses. By J. H. Sprague, Surgeon,	94
Remarks on Tar-Vapour, as a remedy in diseases of the Lungs. Illustrated with cases treated at the General Military Hospital, Fort Pitt. By James Forbes, M.D. &c.	94
Chronic Catarrh,	95
An account of successful treatment of a case of Suppression of Urine. By William Bidwell, Surgeon,	99
Petrification in the Corpora Striata, observed by M. Avisard, D.M.P.	101
Application of Auscultation to the Study of Pregnancy,	103
Experiments on Incubation,	104
Sympathy and Sensation,	104
Rudiments of a Fœtus in the Testicle,	105
Croton Tiglium,	105
Operation of Cleft Palate,	106
Annual Report of the Liverpool Institution for diseases of the Eye, for July 1, 1822, to June 30th, 1822. By Alexander Hannay, M.D. Physician to the Institution,	106

Large Human Calculus,	107
Size and Shape of the Globules of Blood in different animals,	108
Communication between the Auricles of the Heart,	109
An Essay on Curvatures and Distortions of the Spine, and some other morbid arrangements to which it is subjected. By R. W. Bampffield, Esq. Surgeon, &c.	177
New means of extracting opium, &c. from the stomach. By Ed. Jukes, Surgeon,	180
Shaw on the Nervous System,	182
Moir on Puerperal Fever,	195
Smith on Iritis,	197
Dunn on Compound Fractures,	198
On the Pathological anatomy of the Human Brain and its Membranes. By David Cragie, M.D.	200
Cases and Observations on simple chronic Inflammation of the Uterus, in which state this organ may become retroverted. By John Robertson, M.D. Glasgow,	207
Archives Générales de Médecine; Journal Publié par une Société de Médecins, composée de membres de l'académie royale de médecine, de Professeurs, de médecines et de chirurgiens des hôpitaux civils et militaires, etc.	305
Memoir on Hernia of the perineum; by Antoine Scarpa, Emeritus-Professor and Director of the University T. and R. of Pavia, &c. Translated from the Italian. By C. P. Ollivier,	306
Amputation of the Lower Jaw,	308
287. London Medical and Physical Journal, Jan 1823,	310
288. " " " " Feb. 1823,	311
On the use of Carbonate of Iron in Tic Douloureux. By Dr S. Crawford, of Bath,	317
Case of Tetanus cured by the Oleum Terebinthinæ. By B. Hutchinson, Esq.	318
A case of Poisoning by Arsenic. By J. W. Edwards, Esq. Surgeon,	319
Cases of Poisoning by Opium,	321
Case of Acute Rheumatism translated to the heart. By A. Armstrong, Esq.	323
Remarks on Abortion. By H. W. Ward, Esq.	324
Experiments on the Cerebellum and Cerebrum,	325
Cases of Puerperal Convulsions. By Dr Alphonse Menard,	326
Population of Russia, and instances of Longevity,	328
Communication between the Stomach and Bladder,	329
Transudation,	329
Bones of a Fœtus voided by the Rectum,	330
Chronic Ulcers,	331
Means of breaking down Calculi in the Bladder,	331
Hydrocyanic Acid,	331
Case of Sphacelus from injury, successfully treated by amputation, with observations. By William Mathews, Licentiate, Royal College of Surgeons, Edinburgh,	429
Case of Laceration in the Fibres of the Gastrocnemius Muscle, treated without rest or confinement. By E. Barlow, M.D. Bath,	431
Observations, with cases, of Tic Douloureux and Rheumatism of the head, successfully treated by the carbonate of soda and the prussic acid. By Thomas Taylor, F.R.C.S. Cricklade, Wilts,	432
Case of Tic Douloureux, successfully treated by Purgatives. By Andrew Wilson, M.D. Senior physician to Kelso Dispensary,	434
Kystitome caché,	436

INTELLIGENCE.

Adhesive Plaster,	109
Case of the successful use of the 'Cold Affusion,' in an affection of the brain. By Samuel Webber, M.D.	110
Obituary,	111
Literary Notice,	112
Operations in the Massachusetts General Hospital.	
Inguinal Aneurism,	215
Artificial Pupil,	215
Painful affection of all the nerves on one side of the face, cured by repeated operations,	216
Literary Notices.	

The New England Journal

OF

MEDICINE AND SURGERY.

Vol. XII.

JANUARY, 1823.

No. I.

Case of the renewal of two Teeth at a late period of life. By
T. W. PARSONS, M.D. Surgeon-Dentist.

[Communicated for the New England Journal of Medicine and Surgery.]

A LADY of a neighbouring town, about 50 years of age, had lost the incisores, cuspidati, and one bicuspid of the upper jaw, in consequence of the absorption and removal of the alveolar processes. The absorption of the alveoli of the central and lateral incisors commenced first; these teeth came out, and the others, as is usual, succeeded them from time to time, until all the above mentioned teeth had come away. This took place about nine years ago; the gum soon after contracted closely to the jaw bone, and presented the hard, bony ridge which is so conspicuous in the jaws of old people after the teeth, with their alveolar processes have been removed.

From the time of first losing her teeth, she had always supplied their place as fast as they came away with artificial ones; these had been for some years, and were now secured to the first bicuspid on one side, and the second bicuspid on the other, these teeth remaining firm enough to afford sufficient security for the artificial ones.

In the course of the summer of 1821, she called upon me to extract what she conceived to be the fang of one of her former natural teeth, a portion, or the whole of which she supposed might have been left in its socket, and as she expressed it, was now working its way through the gum, and beyond the level of which

it was just visible. She had first noticed it about four months previous to this time, and its appearance was preceded by a fullness of the gum which was at times painful. She had once consulted an itinerant Dentist, who finding it resist three powerful attempts which he made to extract it, concluded by assuring her it was not a stump, but a part of the jaw bone, *and of course ought not to be extracted!* On examining the supposed fang, a small part only of which could be seen, I was surprised to find it of a white appearance, very hard, and quite firmly connected with the jaw. Being convinced from these circumstances that it was not (as she had supposed) a part of the fang of one of her natural teeth, but more like the crown of a new tooth, I stated to her my reasons for objecting to its removal and advised her to let it remain. To this she at length consented, although still urgent to have it taken out, as in its present state it was a source of considerable inconvenience to her. from its pressing upon her artificial teeth, and displacing them so much, as to leave a space between them and the gum, and causing them to become very loose.

In the spring of the succeeding year, she again called upon me, and there was now not the least doubt of its being a new tooth, as about a third part of its crown had passed through the gum.

I did not see her again until some time last summer, and then nearly two thirds of its crown was visible. Although it occupied the place of the right central incisor, it bore no resemblance to that tooth in shape, being of an irregular blunt form on its cutting edge, and very prominent on its external surface.

At this time, I was requested to examine another part of her jaw, where a similar appearance presented to that which had taken place in the gum of the new tooth previous to its passing through it, viz. increased redness and prominence of the gum, attended with an occasional slight degree of pain, and giving when pressed upon with a probe, a sensation as of a hard substance immediately underneath it. It was my wish to divide the gum with a lancet in this place, in order to satisfy myself whether this appearance was caused by another new tooth. To this she objected; but from the examination of the gum, and the similarity of circumstances with those which preceded the coming through of the new tooth, she, as well as myself, had no doubt that here also a new tooth was about to appear.

As there was originally no deficiency in the regular number of the secondary teeth in this case, and from the peculiar form of the new tooth. I have no doubt that it was a supernumerary one, the rudiments of which were probably formed at the time

with those of the permanent teeth generally, but had never before acquired a disposition to pass through the gum; it is rather remarkable that this should take place at so late a period of life, after many of the original teeth had dropped out, and the sockets in which they were contained had been obliterated.

I have seen several instances of anomalous dentition, but I have never before met with one, in which new teeth have appeared either at so late a period of life, or so long after the loss of the preceding ones.

There are a few marvellous cases on record of old people, whose teeth have dropped out and have been immediately succeeded by complete new sets: but I think it probable, that, in most of these instances, the primary teeth have not been shed during childhood, and that when this has taken place at a later period of life, they have then been succeeded by the permanent ones; for, although it sometimes happens that the rudiments of from one to four supernumerary teeth are discovered in the jaws of young subjects, I know of no well attested instance on record, where there has been a complete set of them found. Supernumerary teeth generally shoot forth irregularly and few in number; they have never more than one fang, and this is generally shorter and not so perfectly formed as the fangs of the other teeth; they usually appear among the incisores and cuspidati, but a circumstance by which they may be distinguished from either of these classes of teeth, is the peculiarity of their shape; being of a regularly rounded form on the external surfaces of their crowns, and very blunt on their cutting edges.

This peculiarity in their shape has been noticed by Mr Hunter, and it is so generally correct, that I believe whenever the teeth have come forth in the advance of life, of a regular form, and in their proper places, they are to be considered as instances of protracted dentition, and not as cases of supernumerary teeth.

There is a certain connectedness in the processes which take place at the time of the second dentition, so that when the primary teeth are shed, they are generally followed by the permanent ones, subject however to occasional irregularities. We can conceive that a similar cause which might hinder the permanent teeth from coming, might also prevent the temporary ones from being shed, and although the shedding of these should not take place till adult age, or at a later period of life, such a disposition might then be given to the secondary teeth, as would cause them to pass through the gum.

I once knew a gentleman, about 25 years of age, whose two central incisores of the upper jaw became so loose that he removed them with his fingers, these were soon succeeded by two new incisor teeth, which came in their proper places and were of a regular form, though much larger than those which he had shed. He never recollected to have shed any of his front upper teeth in the early part of his life; which was probably the fact, as those which remained, viz. a lateral incisor and a cuspidatus on each side of the upper jaw, were much smaller than his other teeth, and bore no proportion to the size of the jaw in which they were contained.

There is a case of the renewal of the teeth given by Doct. Slare of his father, in the Phil. Trans. vol. xxvii. 1713, who 'at the age of seventy-five renewed an incisor lost twenty-five years before, at seventy seven he cut another incisor to supply a similar vacancy; at eighty all his teeth were hereby rendered perfect, at eighty-two they all dropped out successively, two years after they were all successively renewed, so that at eighty-five he had an entire new set.'

In the works of Lord Bacon we find that 'they tell a tale of the old Countess of Desmond who lived till she was seven score years old, that she did *dentire* twice or thrice, casting all her old teeth and others coming in their place.'

Fatal Case of vomiting of a chyle-like fluid. By Dr LAWRENCE SPRAGUE.

[Communicated for the New England Journal of Medicine and Surgery.

ON the afternoon of the 12th of October, I was called to visit a man on board a schooner lying in the Kennebec river, who was attacked so suddenly and severely with disease, it was feared he would not survive until I should arrive on board; the vessel lying about a quarter of a mile from my house. When on board I was informed that he had done a mariner's duty from St Bartholomews to this place, and on the passage had enjoyed good health. One hour before I visited him he had been in the boat with other persons, employed in towing the schooner a short distance up the river, and while engaged in this duty, he suddenly requested another person to take his oar as he could hold it no longer, owing to a severe pain in his stomach and bowels, which so entirely prostrated his strength that he was immediately returned on board.

I found him writhing under the most severe pain, which had passed from the abdominal, across the lumbar region. Feeling for his pulse, there was not the least arterial action to be discovered at his wrists, and parts of his skin which had been the most protected from the weather, by the clothes which he wore, were of the same deathly coldness as the rest of the surface. His eyes had a glassy appearance, his countenance pale and his whole aspect bore marks of immediate dissolution. On the outside of the birth in which he lay, I discovered the food which he had recently eaten and ejected from the stomach, mixed with a great quantity of (what appeared to me to be) chyle, it having the appearance of milk in a frothy state. On observing to him that he had been puking, and enquiring of him whether he was now sick at the stomach, he replied, that he had felt no sickness at his stomach, neither had he been exercised with puking, but that the same kind of fluid (with the exception of more food than had been already thrown up) had continued to flow from his mouth since the commencement of the attack, without the least nausea or act of vomiting. Considering this circumstance very extraordinary, and it having been corroborated by three individuals who had been constantly waiting upon him, my attention was arrested and particularly fixed on a fact, at the time, altogether to be unaccounted for. From the time of my arrival, the fluid resembling milk, which I can have no doubt was chyle, continued to flow so fast from his mouth, with but a few seconds intermission, without the least exertion on his part, or the slightest action of vomiting to be perceived, that it was with difficulty he could, at times, keep from suffocating. It seemed as though it flowed through a channel without any perceptible effort to propel it, and no obstruction to its escape, but completely closing the mouth. He was frequently enquired of, whether he felt any nausea, and his uniform reply was, that he did not feel the least inclination to vomit, that the matter came up without his being sensible of the power which ejected it. This fluid of a milky appearance continued to flow from his mouth from the commencement of my visit until his death, which took place in half an hour after my arrival on board the vessel. After he was dead, and as long as I remained on board, (which was half an hour after his decease) as he lay on his back on a board, the discharge from his mouth much increased, bearing the greatest resemblance to the purest milk in a frothy state, unmixed with any other substance. The quantity of fluid thus brought up, is variously computed by three individuals who were with him from the commencement of the attack. One

person supposed the quantity to have been equal to a gallon measure, others a less quantity. For myself I could not undertake to decide to what amount it may have been, but feel confident it was sufficient to produce the coldness which pervaded the whole surface of his body, the loss of pulsation at the wrists, and the fatal consequences which ensued.

The want of fire on board the vessel and other necessities for the application of heat, and the little time the man survived after my arrival, precluded the possibility of making applications, which, had life been protracted, the case would have demanded. The pain continued unabated across the lower part of his back until a few moments before he expired, when he complained of its return to his bowels. A quantity of tinct. opii was given, which was no doubt immediately returned with the copious flow of fluid from his mouth.

Observations and enquiries.—The natural action of the stomach consists of motions subject to intermitted irritations from the fluids and other substances which pass into it: The stomach being irritated by too great a quantity of food, by acrimony from any other source, or by nausea from regurgitation of the bile, or any other cause, with an antiperistaltic motion repels its contents upwards, and discharges them through the œsophagus by vomiting. This act of vomiting is assisted by a sensible action of the abdominal muscles and the diaphragm, which, by compressing the belly and drawing in the ribs, thereby evacuate the stomach with great force. In the case related above, had the fluid been obstructed, the stomach would have been repeatedly crowded with a quantity of fluid, disproportioned to its capacity, which agreeable to the œconomy of that viscus, would have been thrown up by vomiting. In this instance, there was no impediment to its escape, nor did it stop until the stomach should become crowded, but flowed from the stomach through the œsophagus without the action of puking, or the previous feeling of nausea. I have witnessed the disease of choiera in all its various forms and stages, have seen great quantities of chyle ejected from the stomach, but never without the mechanical action of vomiting. There cannot I think be any doubt that the great quantity of fluid brought up in this case, came from the stomach; why then was the continued ejection, or flow, unattended with nausea and vomiting? Was this case a retrograde action of the lacteal vessels, by which the chyle was returned into the intestines and by an unremitted retrograde action of the intestines, stomach and œsophagus, permitted to flow unimpeded through the mouth? If this be possible, did not the stomach, in this case, depart from

the laws which it usually observes, when oppressed by substance acrimonious in its nature, or too great in quantity?

Hallowell, Maine, November 1st, 1822.

P. S. The mate of the schooner, one of the persons in attendance, remarked, that he had seen a man who was attacked as this one was, brought up the same kind of fluid, in the same manner and expired in twenty-five minutes.

[The following extracts are translations* from Beclard's Additions to the Anatomie Générale. We are happy to state that Dr Hayward has completed the translation of Beclard's work. We understand that it is in the press, and will be published uniformly with Dr Hayward's translation of the Anatomie Générale.—Ed.]

Morbid Anatomy of the Vascular System with Red Blood.

1ST. ALTERATIONS IN THE EXTERNAL FORMS.

THE arteries often increase in size, either in their whole extent, or in a single point, or even on one side only of their circumference. The increase of the arteries in their whole length is a real hypertrophy, which takes place when the organs themselves are the seat of an excess of nutrition, when they experience a very acute and long continued irritation, and under various circumstances pointed out above. After the obliteration of an artery, the collateral branches do not increase in breadth only, but in length also; thus they describe curves which did not before exist. The partial dilatation constitutes one of the varieties of aneurism, the true aneurism of the ancients. This affection is in fact in the beginning only a simple, circumscribed and sac-like dilatation of the three arterial coats, as is proved by many observations; the artery is rarely dilated uniformly and in its whole circumference; when this takes place, the disease exhibits differences sufficiently striking to warrant us in distinguishing it, as Scarpa has done, from aneurism; these two kinds of dilatation are sometimes united.

The contraction of the arteries is less common than their dilatation. 1st. It is observed whenever the blood ceases to pass through them or does it in less quantity as happens in gangrene, especially in that variety known under the name of *dry gangrene*, in some cases of atrophy, paralysis, &c. 2nd.

* Additions à l'Anatomie Générale de Xav. Bichat, par P. A. Beclard, Professeur d'Anatomie et de Physiologie à la Faculté de médecine de Paris. 1822.

Circumscribed contractions, the cause of which it is very difficult to determine, have been met with, particularly in the great arteries, such as the aorta and the pulmonary artery. In the greatest number of cases the texture of the artery is however sound; sometimes it has been found thickened. There is often connected with this alteration some organic disease of the heart, or even the rupture of this organ. 3d. Various tumours, situated in the course of the arteries, may also, by the pressure they exert, diminish their calibre more or less. Old aneurismal tumours produce this effect upon the arteries in which they are situated, and upon the branches they are near, and which they compress. Under almost all these circumstances the contraction of the arteries may extend even to their obliteration.

The manner of distribution of the arteries undergoes important changes when a principal trunk is obliterated in a part; there is then formed one or more anastomosing passages which supply the place of the trunk in the whole course of its obliteration, and which carry the blood from the last branch furnished above the obliterated trunk to the first furnished below it. This is what is seen in the ligature of an artery, after wounds of these vessels, aneurisms, &c.

II. ALTERATIONS IN THE ORGANIZATION.

The internal membrane is much more susceptible than the others to inflammation. Sometimes this state is first developed in this membrane, sometimes it is transmitted to it from other organs, it is thus that in acute inflammation of thorax, or abdomen, the internal membrane of the aorta has sometimes been at the same time found greatly inflamed; in the affected parts themselves the arteries commonly partake of the inflammation of the other textures. The redness which characterizes this arterial phlegmasia is usually accompanied by a thickening of the membrane and an effusion of an albuminous nature, sometimes very copious; the vessels of the peculiar membrane are also frequently more or less engorged.

Inflammation of the arteries is followed by their obliteration, when the two sides of the inflamed internal membrane unite together. This adhesion is owing, like most of the phenomena of this kind, to the circumstance that the effused fluid passes to the solid state and forms a sort of false membrane which afterwards becomes organized. It is in this way that we can understand how, notwithstanding the destruction of the arteries in ulcers oftentimes very extensive, no hemorrhage takes place; the preceding inflammation having previously obliterated the

vessels. Pus has never been found in the arteries, perhaps it is carried off by the blood as fast as it is formed. Ought we to refer to a state of induration or of chronic inflammation many of the organic diseases of the arteries, which are accompanied by a greater thickness and consistence of their texture? This question cannot be resolved. What is certain is, that inflammation, connected either incidentally, or as effect or cause, is often united to similar alterations. Gangrene never succeeds to the inflammation of the internal membrane alone; but the arteries are often comprehended in eschars; it happens then that the blood is coagulated beyond the dead portion, so that there is no hemorrhage when the eschar separates, unless the vessel be very large.

The cellular texture exterior to the arteries is subject to the same alterations as the rest of the cellular system; inflammation may engorge, thicken and ulcerate it; suppuration may destroy it, &c. The cellular coat properly so called is but very rarely inflamed. When this happens and the inflammation is long continued, there sometimes results from it that sort of brittleness which has been treated of in the article on the cellular system; a brittleness which has perhaps, however, been much exaggerated.

That state of the arteries of which Bichat has spoken, and which resembles their inflammation, because it consists in a more or less extensive redness of their internal membrane, has been met with in cases in which it could be attributed neither to maceration, exposure to the air, the presence of a coagulum nor to the time that had elapsed since death (see Hodgson on the Diseases of the Arteries.) We know not then if it be not, under some circumstances, a real morbid alteration. According to Franck, this redness was constant and occupied the whole extent of the arterial system, in a species which he had occasion to observe.

The solutions of continuity of the arteries differ according as they penetrate the cavity of the vessel or affect only a part of its membranes.

The first case, which is most common, has been very well observed by Dr Jones upon dogs. I have also made some experiments upon this subject. The following is what takes place when the artery of a living animal is opened.

1st. If it be by a simple puncture, with the point of a needle, for example, a small quantity of blood flows, a coagulum is formed in the cellular sheath and stops the hemorrhage. This coagulum afterwards disappears, the edges of the opening inflame, and adhesion takes place. The cicatrix is confounded in

time with the arterial texture, and no traces are left of the small wound. The cavity of the artery is preserved.

2nd. When the wound is of some extent, the issue is different, according to the state of the cellular sheath, and the direction and size of the opening. If the sheath has been destroyed the hemorrhage continues in all cases; and, though suspended for a time by syncope, it only ceases with the life of the animal. When on the contrary, the sheath remains uninjured, 1st, if the wound be longitudinal; to the jet of blood which escapes succeeds the formation of a clot which shuts the opening, then this cicatrizes, as in the case of simple puncture, only the cicatrix remains apparent; it is linear, continuous with the texture of the artery, and is seen very well by opening this last and examining its parietes against the light. 2d. If the wound be transverse, but occupies only a quarter of the circumference of the artery, the hemorrhage, though more abundant than in the preceding case, because the retraction of the arterial fibres gives a circular form to the opening, may still stop of itself, and its suspension be followed by the formation of a cicatrix, of which I have preserved examples. 3d. If the wound embraces half the circumference of the artery, the opening takes an elliptical form, and death necessarily ensues. 4th. Finally if three quarters of the circumference of the artery have been divided, the separation is very considerable; the opposite ends of the artery, extremely elongated, represent, if we may so say, the extremities of two pens united at their points, the kind of tongue which unites them is finally broken, and the cure when it is effected, is made by the obliteration of the vessel.

3d. In complete transverse sections, death does not take place unless there is at the same time denudation of the artery. When the sheath is left, the wound is almost always cured in animals by an obliteration of the artery. The two ends retract into the interior of their cellular canal, which thus extends beyond their extremity. The hemorrhage brings on weakness and syncope; the blood is effused, and finally forms a coagulum which, filling the sheath, surrounds the artery and shuts its extremity. When the force of the heart returns, the coagulum resists, and the hemorrhage does not again come on. The blood coagulates in the artery as far as the first collateral branches, the parietes of the vessel contract, a cicatrix is formed at each end, and obliteration takes place. This obliteration is, according to Jones, the result of a lymphatic effusion which is poured out in the artery near its extremity between the external and internal coagula. When this takes place, the coagula are absorbed and disappear.

The same things do not always take place in man. In punctures for example, it is extremely rare that the cure is solid, unless the artery is at the same time obliterated. The hemorrhage in this case left to itself, continues without interruption; the blood, if it does not flow out, is effused into the cellular texture, and produces a diffused or *primary false aneurism*. Suppose that by compression or rest, a coagulum should be formed, and a cicatrix even established, the cure may be only apparent. Though this state may continue for years, the blood will finally remove or break these feeble barriers, and a tumour will appear; this will be a *circumscribed consecutive false aneurism*. Such is at least the result of facts observed up to the present time. It is true that we are almost always ignorant of the direction and extent of the wound; and, as has been seen, the termination is very different in this respect. It is thus extremely probable that a puncture made lengthwise would heal as well in man as it does in animals.

Spontaneous cure is likewise very rare, in man, of wounds which comprehend the whole circumference of the artery; and, unless the caliber be very small, these wounds left to themselves are uniformly fatal. It is necessary however to except from them, 1st, certain cases in which, notwithstanding the considerable size of the vessels opened, a coagulum formed during a syncope has been sufficiently powerful, or rather the circulation has been sufficiently feeble, so that the hemorrhage has not re-appeared, and the adhesive inflammation has had time to take place; examples of this kind are cited by Boerhave, Garengeot and others. 2d. Wounds from fire-arms and those which result from the action of fire and caustics; here it is the eschars which prevent the hemorrhage, and when they fall off the vessels are often obliterated. 3d. Lacerated wounds; I have collected a number of observations respecting them made by authors; the most remarkable is the case of Samuel Wood, related in the Philosophical Transactions and since in various works. In some of these observations, death has been the consequence of a copious hemorrhage; but in the greatest number, as also in the experiments which I have made upon animals, a cure has taken place. Besides the retraction and contraction noticed by Bichat, two causes are opposed still in this case to the flow of blood, and favour the obliteration of the artery. In fact, at the instant even of the accident, this yields and is elongated before breaking; but the internal membranes, less extensible, are torn at first unequally and in different places, and then are completely separated, whilst the cellular coat continues to stretch, approximating more and more the axis of the

vessel, like a tube of melted glass drawn at both ends. When the separation is completed, the artery exhibits then at its extremity, a conical elongation, terminated by a narrow opening, and in its interior irregular shreds which obstruct its cavity. This last circumstance appears to be the most important of the three, for, 1st, the retraction is often wanting, the end of the artery is pendent, and yet there is no hemorrhage; 2d. by cutting in an animal the summit of the kind of cone which the artery forms, the flow of blood does not return, except the section be made above the internal lacerations.

Solutions of continuity, which affect but one part of the arterial membranes, act upon the internal or external coats. Hunter and Home have seen, that if the internal membrane be laid bare in dogs, by cutting the external and middle ones, there results from it an albuminous exudation, by which the thickness of the artery is increased. They have even removed these membranes to a certain extent, without the internal one being distended by the blood. This must however take place in man, in what is called *mixed or internal mixed aneurism, aneurysma herniam arteriæ sistens*, in which it is supposed the sac is formed by the internal membrane dilated. Many authors reject this kind of aneurism, but examples of it have been given.

It has been thought, that the distension of the arteries during life, in violent motions, might produce the rupture of the internal membranes and thus dispose to aneurism. But the arteries are every where so arranged that it is impossible that their distension can occasion even a partial rupture, of which it is easy to be convinced on the dead body; this would not happen unless their parietes were the seat of some organic disease. This internal rupture is observed on the contrary, under the following circumstances. 1st. By pressing with a pincers an artery of an animal, we effect the division of the internal and middle membranes, the external one remaining whole; the small wound, which results from it, cicatrizes, and the artery loses nothing of its strength in this place; the parietes are even thicker; when there is a great number of lacerations, the obliteration of the artery is sometimes the consequence. 2d. What, in the preceding case, happens to a moderate extent, takes place circularly from a ligature, as has been elsewhere said. There is also this difference, that the edges of the wound being in contact, are agglutinated by a mechanism analogous to that of the reunion of wounds by the first intention. The artery is then obliterated; the blood is coagulated above and below the cicatrix, as far as the first collateral branches; the obliteration goes all this extent. If these branches are very near, the coag-

ulum being very weak, the cicatrix is not maintained, and a hemorrhage may take place when the ligature comes off, and even before, when the membranes begin to be broken. Jones says, that it is not necessary for a ligature to remain applied upon an artery in order that obliteration should take place, by placing many ligatures and removing them immediate, he has seen this effect produced. Travers assures us that obliteration is certain when the ligature has remained applied for an hour; though the blood often resumes its course at the end of that time, the artery is not the less obliterated, according to the experiments of this author. I have uniformly seen in my experiments the artery remain permeable, when the ligature has been removed even at the end of twenty-four hours; it was not closed definitively until the adhesion was established at the moment the ligature came off, which commonly happened at the end of eight and forty hours. 3d. If an aneurism be of any standing, the internal membranes yield to the distension, as we have seen; they are torn by the mere effort of the blood or by any external violence. The tumour, which is then formed by the cellular coat alone, makes more rapid progress; the blood coagulates in its interior and forms fibrous layers, the density of which increases as they are removed from the axis of the vessel; the sac, freed from these coagula, exhibits on its internal surface an irregular line which indicates the point where the membranes cease; these are sometimes floating, and exhibit a sort of incomplete partition which separates the cavity of the sac from that of the artery; this is the true aneurism, arrived to that degree which some have called *external mixed*. In time the cellular coat itself is affected, it is destroyed, and the sac is formed only of the cellular texture and the other surrounding parts. 4th. In another species of aneurism, which at an advanced period, does not differ sensibly from the preceding, and which has been designated under the same name, but which others call *spontaneous aneurism*, the destruction of the membranes precedes the formation of the tumour. This destruction is here owing to the ulceration or rupture which the internal membrane experiences in organic diseases; the blood is then confined below this membrane and distends the cellular coat. This variety of aneurism is perhaps the most common, but it is not correct to say that all begin in this way. Moreover the ulceration of the internal membrane is not always followed by aneurism; M. Cruveilhier has found this membrane destroyed as well as the fibrous, and yet there was no dilatation of the cellular coat.

Foreign bodies, in contact with the arterial texture, inflame

and often ulcerate it so as to open the cavity of the vessel. If these bodies act by approximating to each other the parietes of the artery, they produce adhesion of these parietes. When they make a circular constriction, like a ligature, they produce mortification in the narrow portion which they embrace, and are afterwards removed with it; this is what takes place with a ligature at the end of from eight to twenty days.

We know the frequency of the arterial ossifications; they exhibit many forms. There are circular ones which invade arteries almost in their whole length; they extend to the peculiar membrane, and are sometimes attended with a contraction and obstruction of the vessel; that species of gangrene which is called *senile* is oftentimes the consequence of it. In other cases the incrustation is much more limited, there are only on the interior of the artery a great number of small white marks, superficial and but slightly prominent. Between these two extremes are found yellowish plates semitransparent and irregular, which appear at first to be situated in the space between the two membranes, but which the blood afterwards touches immediately, because the internal one is destroyed on their surface.

The cartilaginous transformation has also been observed in the arterial texture. It has its seat in the internal membrane, and is characterized by plates of a white colour, prominent, fibrous and very dense. The cartilaginous state almost uniformly precedes the ossifications of the arteries which take place in adult age, whilst those of old people are owing simply to irregular depositions of calcareous matter.

The arteries are changed into a ligamentary texture, whenever their cavity is obliterated naturally or preternaturally. This texture in time becomes more delicate, and disappears itself, or is confounded with the cellular texture.

There are some morbid alterations peculiar to the arterial texture; they have hardly any thing in common with those which affect the other textures. 1. Sometimes in aneurisms the internal membrane is found thickened, softened, and, as it were, fungous. 2. Growths similar in form to those which are the product of syphilis, have been met with in the aortic valves; Hodgson has even seen them in the femoral artery. 3. The deposition of a pultaceous substance on or under the internal membrane is a much more frequent alteration. It has been compared to steatoma; but there is a greater analogy between it and the tubercular affection. Sometimes this substance, irregularly disseminated, forms in the interior of the artery small yellowish granulations, covered with an extremely delicate pellicle; sometimes, accumulated between the internal and the

fibrous coat, it forms round masses which obstruct more or less the cavity of the vessel, or even real centres, filled with a purulent, opaque and yellowish fluid. The tumour in the last case, terminates sometimes by opening into the artery; at others, the substance hardens, and assumes all the characters of the osseous productions: it then contains much phosphate of lime. This affection is often connected with the osseous transformation. Both are common in aneurisms, especially the first.

The arteries partake of the affections of the organs of which they make a part. Their destruction, in cancerous, tubercular, and other affections, produces various hemorrhages; sometimes, however, their obliteration prevents the flow of blood.

III. ALTERATIONS IN THE DEVELOPMENT.

Without speaking of the numberless varieties of origin, distribution, &c. observed in the arteries, and which, being all different from the natural arrangement, exert, however, but a very limited influence upon the circulation, it will be sufficient to point out some of those, the importance of which is greater in this respect. The heart has been seen wanting with all the superior parts, and consequently also their vessels. In the heart itself, it sometimes happens, that there is but one auricle and one ventricle; the pulmonary artery arises then from the aorta. Or it is the partition between the ventricles that is perforated; or it is the foramen ovale which is preserved, or the ductus arteriosus, that remains permeable. In one instance the aorta terminated immediately after its ascending portion, and the pulmonary artery continued it inferiorly. In another, the trunk of the first was bifurcated so as to embrace the trachea and œsophagus.

Besides the capillaries which are developed under many circumstances, arteries of a certain size are sometimes preternaturally produced. Charles Parry says that he has found in a sheep in whom he has cut the carotid artery, new arteries which went parallel from one of the two ends to the other, the whole extent of the cicatrix, and thus reestablished the circulation.

[To the Editors of the *New England Journal of Medicine and Surgery.*]

GENTLEMEN,

WHEN I wrote the communication, transmitted to you last March, and published in the *Journal* of last July, consisting of 'Observations' on the 'Review' of 'The Pharmacopœia of the United States of America;' which review was

contained in the Journal for October 1821; I did not even suspect, that I was advancing *one* opinion that would be controverted; stating *one* fact that would be disputed; or deducing *one* inference that would be contested. I believed that the facts which I stated as such, would be received as facts; that the inferences I drew from them were just and warrantable; and that my opinions, on the whole, were correct, and supported by chemical principles long and firmly established. It would seem, however, from the substance of your 'Note,' Gentlemen, appended to my communication, that in all this I was but deceived; that the happy security in which I felt myself shielded, from a confidence that I was communicating something at least *true*, if not important; was altogether delusive. It would seem, too, that the Reviewer, who, one would think, was more immediately concerned, has withdrawn himself from the contest and become a spectator, or has taken shelter behind 'the Editors;' and that instead of having to repel the attack of an individual; I am subjected to the necessity of defending myself against the assaults of an *HOST*, for aught I know; who display a disposition not only to cut me up 'root and branch;' but also to give no quarter, even if it should be solicited. But all these frightful circumstances, Gentlemen, do not appal me; I am not prepared to quit the field *so* tamely; I am disposed to make *one* effort more, if not with the hope of convincing, at least with the assurance of proving that I am not *so* easily vanquished; that if I am weak in argument, I am not wanting in matter of fact, nor in courage, nor in a determination to defend myself in the best manner I can; knowing full well, that defeat where the odds are so great, is hardly less honourable than victory gained under opposite circumstances.

Notwithstanding the plausibility of your reasoning, Gentlemen, and the imposing manner in which you make your statements, and detail your experiments; I 'still' feel myself warranted to assert, that I have prepared the calomel pill as described in the communication already referred to, for above fifteen years; I have cut them, and broken them, and examined them times without number; have administered them in my practice very frequently; have a few times taken them myself, when indisposed; and have never observed any change in their colour, consistence, or medicinal qualities: *Neither do I believe, that the calomel pill prepared as I have before described, is liable, under any natural circumstances of atmospheric temperature and moisture, to undergo any change whatever.*

Here, Gentlemen, I might, perhaps, with propriety, close this paper at once; as the force of your 'Note' is obviously direct-

ed, not so much against my formula for the calomel pill, as against that of the 'Pharmacopœia of the United States of America.' As I have, however, inadvertently become an implied defender of the latter formula; and as I did, some years ago, use in my practice, a calomel pill prepared in a manner precisely similar to that formula, without ever finding it liable to any of the objections alleged against it; I consider it incumbent on me to offer some further remarks on the subject in general, and on certain parts of your 'Note' in particular. My remarks will apply, for the most part, to both formula alike.

FIRST. I consider it proper, gentlemen, that we should ascertain what kind of soap we have employed in our respective formulæ for the calomel pill. I have used for several years last past, a soap, a considerable quantity of which I purchased of a judicious apothecary in Boston, for 'Castile Soap,' and which I have never entertained any doubt was really such. It is hard, brittle, and of an uniform light colour; that is, it is not clouded, shaded or variegated in the least. The clouded or 'speckled soap,' of the shops, I was taught, when a pupil, to call 'Venice soap,' and by that name I have continued to designate it: I do not consider it 'Castile soap.'

SECOND. It might contribute to do away our difference of opinion on this subject, were we accurately to determine what is the condition of the articles of which our masses are composed, when duly prepared for making into pills; whether they are in a state of chemical combination, or simply that of mixture. For my part I am persuaded that they are simply in a state of mixture; and in this opinion I think I am supported by facts, and by chemical principles universally admitted as true. In fact, the list 'of incompatible salts,' comprehends but few, even 'in solution,' compared to those which undergo no spontaneous decomposition upon being mixed. Among the changes which are said to indicate a chemical decomposition in the relations of the proximate principles of bodies upon being mixed, are, 'change of form,' 'change of colour,' and 'alteration of effects on the human body.' Now I have never observed one of these circumstances to take place in the calomel pills which I have prepared and used; consequently I think I am justified in the conclusion, that *no such change has taken place*. Is not a change in the relations of the proximate principles of solid bodies when mixed, always accompanied with a change in the *consistence* of the mass? I do not hesitate to answer this question affirmatively; and I believe it is liable to very few exceptions. Few persons, I believe, of my age, have been more extensively employed in the preparation of pills 'of various kinds,'

than I have been ; and I have never observed in more than a very few instances, the articles of which pills were composed 'react upon each other,' or appear to undergo a chemical change. Indeed I speak with no small share of confidence, when I state, that the changes that are liable to take place upon mixing various solid articles, in the preparation of pills, are *very few* ; and that they are to be discovered rather by trial, than speculation. 'In no case,' says one, 'can we, from 'our knowledge of two bodies, infer with certainty, *a priori*, what will be the properties of the compound which results from their union.'

THIRD. To the statement which you make, Gentlemen, in number '2' of your 'Note;' which has a very imposing aspect, and would seem to be quite conclusive against me ; I make no reply, except merely to repeat, that I have never observed any change of colour or other qualities, in the calomel pills which I have prepared.

FOURTH. In number '3' of your 'Note' you say, 'When the calomel pill formed with the soap is taken into the stomach, it meets with liquids by which one portion at least must be dissolved, and while dissolving, as it must be in contact with the calomel, we see no good reason why the latter should not be decomposed.' Do you profess, Gentlemen, to be so perfectly acquainted with the economy of the human stomach, as to pronounce with certainty and confidence, what chemical changes take place in foreign bodies, when introduced into that organ ? In the language of a most sublime writer, I am ready to acknowledge, 'such knowledge is too wonderful for me : it is high, I cannot attain unto it.' Were such reasoning, Gentlemen, to influence physicians in their prescriptions, they must at once, it is believed, expunge, at least one half of the formulæ to be found in the pharmacopœias and books of practice, as unchemical, liable to become 'inert,' and therefore subject to proscription. But in this dereliction, let it be remembered, we oppose the example of the best professional authority, living and written, on the subject of medical prescription. We cannot open a book of pharmacy or practice, in which we do not find numerous examples of formulæ and of prescription, in which compound articles are mixed. I have recently read a volume, the production of an English physician, it is presumed of the highest standing in the profession, in which I find the following passage, viz. 'Sometimes a combination of the tartrate of antimony, with the sulphate of magnesia, or of the pulvis antimonalis with calomel, will rapidly reduce the heat and quickness of the pulse, by acting as an emetic and a purgative at the same time.'" I hardly know of more frequent examples of medical

prescription than such. I know of physicians of great experience and reputation, who are in the habit of giving calomel and the emetic tartar, mixed in some consistent vehicle, with a view to their emetico-cathartic effects, without the least suspicion of a deterioration of either, from a chemical decomposition. I have pills by me now, which I prepared according to a recipe given me by a medical gentleman of the first respectability, the ingredients of which are sulphate of copper, submuriate of quicksilver, and crumb of bread; and I perceive no change that they have undergone, either in their external character, whole or broken, or in their medicinal qualities; although it is now more than two years since they were prepared. It is presumed hundreds of similar instances might be adduced. But perhaps, Gentlemen, you may object to such examples as I have just mentioned, as fair specimens; because no alkaline salt is employed in the compositions. We will, then, take other examples. I have a recipe given me, for a pill, by a gentleman in this county, of no inferior standing in the profession, and a Fellow of the Massachusetts Medical Society; composed of sulphate of iron, supercarbonate of potash, and gum resin of myrrh. I have prepared pills according to this recipe repeatedly, and have kept them by me sometimes for several months, and I never could perceive that they underwent any change, either by their external or internal appearance, or qualities. Take another example: 'The 'antihectic' or 'antiseptic mixture of Dr Griffith's, composed of myrrh, sal martis, and sal tartar?' (of which the forementioned pill is probably only a modification)—the 'myrrh mixture,' as it is commonly called. This was long since pronounced an 'unchemical' preparation; but however that may be, some of the most eminent and best educated physicians in the United States, and some of them, certainly, inferior to none in their knowledge of chemistry, have for a long time continued to prepare, prescribe, and employ it. Other and numerous examples, Gentlemen, might be produced, in which the metallic, alkaline and earthy salts are directed to be mixed together in a solid form, with gums, resins, gum-resins, and even with hard soap, by the best professional authority, without a suspicion of a chemical decomposition taking place in any of the articles: And if it were necessary, I could refer to names, volumes, and pages, for such examples. But this would be needless; as you yourselves, Gentlemen, must be intimately acquainted with such examples; and when I consider this, I confess I am astonished at the reasoning contained in your 'Note.' No; Messrs. Editors! if all such compounded medicines must be given up, as are liable, *under certain circumstances* of temperature and moisture, to un-

dergo a chemical decomposition *out of the body*, which circumstances, by the by, are never likely to occur, unless by carelessness or design; or because the same medicines after being taken into the stomach, *may* become changed or decomposed, and consequently inert; we may at once expunge from our books, a long list of articles of the most undoubted potency and efficacy in the treatment of diseases, and return quietly and patiently again to the use of 'Galenicals' only!

I humbly conceive, Gentlemen, that your remarks have relation to opinions that are not founded on fact. You seem to suppose, that because you are certain that Castile or Windsor soap and calomel, with water, combined in the form of pills, will, under certain circumstances of the atmosphere, as it respects heat and moisture, undergo decomposition, the same articles will also become decomposed under circumstances in those respects altogether different. But is this a legitimate inference? Is it fair to infer that because gunpowder, or the old pulvis fulminans of the books, will explode when exposed to a temperature somewhat short of ignition, they will, therefore, suffer a similar decomposition at any temperature below? The fact, indeed, Gentlemen, seems to me to be, as was stated in my former communication, viz. 'that there are many substances between which there subsists a strong chemical affinity, and which, under certain circumstances of heat and moisture, are very liable to undergo a decomposition; but which, independent of those circumstances, would, perhaps, forever remain undecomposed.' These I take to be facts respecting soap, calomel, and water, made into pills; they are merely mixed; not chemically combined; and in a natural state of the atmosphere, liable to undergo no change; and when taken into the stomach, *the calomel produces its peculiar effects in the most perfect manner*. These I pronounce to be facts from repeated trials and observations; and I am willing, Gentlemen, to oppose them as publicly as you please, to your reasoning. The same remarks I consider applicable to the 'compound pills of sulphate of iron' and of 'jalap;' all liable, without dispute, to become decomposed under certain circumstances of heat and moisture; but neither of which does undergo a chemical change, in ordinary states of those conditions.

Your conjecture, Gentlemen, in the same paragraph, (number '3' of your 'Note,') respecting the reason of my giving some other cathartic medicine at the same time with, or soon after, the calomel pill, I can assure you is unfounded; *for I am persuaded there is no form in which calomel can be administered, that is so active as the pill*. My reasons for such practice, Gentlemen, are as follows: 1st. It is well known that calomel exerts a particular influence in the primæ viæ and on the chylopoietic

viscera ; and less, on the inferior portions of the intestinal canal ; and that, therefore, in order to produce a full cathartic effect, it is advisable to accompany its exhibition with, or to give soon after, some other cathartic, that the united powers of both might more fully operate on the whole of the intestines. 2dly. A sore mouth from mercury is a most unwelcome occurrence, in the country at least ; and physicians, so far as I have been acquainted, with a view to prevent that effect, have been accustomed, generally, to follow the exhibition of any active preparation of mercury, with some cathartic, in order 'to work it off.' 3dly. I have found calomel, in a large dose, unaided in its purgative operation by some other cathartic medicine, rather apt to excite tormina.

FIFTH. In paragraph, number '4' of your 'Note,' speaking of the 'compound pill of sulphate of iron' you say ; 'If, after a few days, this mass be broken, minute and brilliant crystals may be seen, which in the course of a few hours effloresce and become a white powder ; proving these crystals to be sulphate of soda.' But, Gentlemen, will not the sulphate of iron, alone, when exposed to a dry atmosphere, in no very great length of time, 'effloresce and become a white powder?' You cannot be unacquainted with this fact, Gentlemen ; and it is not unknown to economical housewives in the country, who are in the practice of using 'copperas,' as they call it, in a small way, for colouring certain articles of wearing apparel ; and who also very well know, that the article, by such change, has not lost its virtues, so as to become unfit for their purpose. I have known the sulphate of iron effloresce when mixed with other articles besides soap, in the form of pills, and the pills crumble ; but I had no idea then, neither have I any now, that a chemical change in the article had taken place ; but that the change consisted merely in a loss of the water of crystallization ; a mere 'deliquescence,' as it has by some been called.

In the same paragraph, Gentlemen, and on the same subject, you say, 'if the rhubarb have any chemical effect,' it 'must aid in the decomposition of the sulphate ;' and you further state, that 'the whole of the sulphate,' 'will not be decomposed, because the quantity of soap directed is not sufficiently large,' &c. I thank you, Gentlemen, for this statement ; and shall take liberty to convert it to my own use ; after premising two things : 1st. It is said that in a hundred parts of good hard soap, there are contained from eight to twelve parts of soda ; and that in a hundred parts of calomel, there are eleven or twelve parts of muriatic acid. 2d. It will be recollected that the calomel pill which I described and recommended in my former communication, consisted of 'calomel, three parts ; Castile soap, one part ;' and that the formula in the 'National Pharmacopœia, for preparing pills

of submuriate of mercury,' directs, 'Submuriate of mercury, half a drachm. Castile soap, one scruple,' that is, calomel, THREE parts; Castile soap, two parts: And this latter is precisely the form which I followed for some time, before I adopted the former. Now, Messrs. Editors; as I make no lofty pretensions to chemical knowledge, and should, without doubt, be puzzled, and confounded, with questions in that science, which you would solve with the utmost promptitude and precision; I would ask leave to propose two or three for your consideration. 1st. If the soda contained in THREE parts of Castile soap, with the 'aid' of nine parts of rhubarb, be insufficient to decompose FOUR parts of sulphate of iron; what portion of THREE parts of calomel will the same salt contained in ONE part or even TWO parts of Castile soap, decompose? Or, 2d. has the soda in the soap a greater affinity for the muriatic acid of the calomel, than for the sulphuric acid of the sulphate of iron? Or again; 3d. What quantity of soda is necessary to decompose any given quantity of calomel?—You may deem these questions impertinent. Gentlemen; but I must confess they seem to me to have some bearing upon the subject.

Speculation, Gentlemen, is an amusing exercise; but one fact is worth a volume of it: And he who indulges in speculation, regardless of facts, will probably find it afford more amusement than instruction. I would not accuse you of hypercriticism; but I cannot conceive that there is any just ground for your reasoning, or for the freedom of remark in which you indulge in more than one instance, in your 'Note.' I believe all your reasoning concerning a change in the calomel pill, to be groundless and fallacious; simply because it is opposed to facts with which I have been long and familiarly acquainted, and to chemical principles which I believe to be well established and extensively known.

Fully aware, as I am, Gentlemen, that the medical profession cannot be greatly interested in the discussion of a question in chemistry or pharmacy in which I hold a conspicuous part, I shall now take leave of this subject, with a determination to write no more on it, except it be to acknowledge and retract errors, when I discover them, or they are made known to me.

I have only to add, Gentlemen, that I herewith send you a sample of my calomel pills, which were made last March; and of my soap, of which they were composed. You will judge for yourselves, whether the pills have probably sustained any change of colour or loss of power; or whether the soap is such as you have employed. I am, Gentlemen, very respectfully, your most obedient and humble servant,

RICHARD HAZELTINE.

Lynn, Sept. 1822.

REVIEW.

ARTICLE I.

A Dissertation on the Treatment of Morbid Local Affections of Nerves: to which the Jacksonian Prize was adjudged by the Royal College of Surgeons. By JOSEPH SWAN, Member of the Royal College of Surgeons, and Surgeon to the Lincoln County Hospital.

THE rapid advancement of medicine and the collateral branches of science within the last few years, has probably been owing more to the mode of investigation that has been adopted, than to any other single cause. Mankind have learnt that the division of labour is as essential to the promotion of scientific as of mechanical pursuits, and this belief is now apparent in the investigation of the various subjects of our profession. Individuals at the present day, confine themselves, usually, to the examination of some one topic; illustrate, for example, by experiments, some single physiological subject, without going into an enquiry as to the functions of the whole economy, or engage in the discussion of some one morbid affection, or the diseases of some one system. By thus directing the whole powers of the mind to one topic alone, it is obvious that the more light will be gained, than if they are suffered to range over many without minutely investigating any one.

Within a few years, numerous treatises of various merit upon single subjects both in physiology and medicine have appeared, many of which have been elicited by the establishment of Prize Questions. Among this number is the work before us, to which the Jacksonian Prize for the year 1820, was adjudged by the Royal College of Surgeons. It is a treatise of about two hundred pages, divided into fifteen chapters, and embracing a pretty full view of the various local diseases of the nerves with the best mode of treatment. The author has availed himself very judiciously of the labours of others, though he appears to be an accurate and diligent observer, and to have derived considerable information from this source, as well as from some experi-

mental inquiries which he instituted. In the Preface he states that there is great probability in the theory of the identity of the electric fluid and the nervous power; and though this opinion has derived some celebrity and probably some adherents from the support given to it by Dr Philip, yet we must confess that it has always appeared to us to be very unphilosophical, and to be founded on very gross analogies. The electric power, say its advocates, is capable of supporting for a time the action of the heart, lungs and stomach, and 'the galvanic influence on the nerves of an animal apparently dead, will produce the same motions in the parts to which these nerves are distributed, that were produced in them when the animal was alive.' But because *we know* of no other power than galvanism or electricity which can produce these effects, it is surely no reason that there *can* be no other, and that this fluid must of course be the same principle which presides over the action of the nerves during life; it seems to be an attempt to reduce every thing to our comprehension, as if it were not possible that there might be an infinity of means wholly beyond our powers of understanding. The properties of animate bodies are essentially distinct from those of inanimate ones, and are in every respect peculiar to them; and it would to our minds be quite as rational to talk of digestion, secretion, &c. in connexion with the latter, as to speak of galvanism and electricity as the moving principles of the former. There is a point beyond which we cannot ascend in the investigation of physiological subjects, and we can never arrive at a knowledge of the ultimate causes of the vital phenomena. Every attempt is fruitless, and leads only to a wild and extravagant speculation. With the exception, however, of the instance now alluded to, and this is introduced rather as an incidental remark, the present work is remarkably free from loose, hypothetical views, and as it contains the most recent opinions respecting the interesting subjects upon which it treats, we shall present an analysis of its contents to our readers.

The author divides the diseases of the nerves into those affecting the nerves belonging to the senses, and those that affect such nerves as are under the influence of the will. A third division he thinks might be made including the system of the ganglions, but at present it would be attended with no practical advantage, as pathologists have hitherto made so few researches concerning them.

When the *nerves of the senses* are affected, they produce fewer constitutional symptoms than the other nerves under similar circumstances, but are less liable to be restored to the natural state.

The *olfactory nerve* may be injured by applications to the nose or inflammation of the Schneiderian membrane. The same thing may happen from pressure on the origin of the nerves by hydatids, accumulation of water in the ventricles, or other diseases of the brain. The disease of the Schneiderian membrane is sometimes removed by the application of leeches, but the other affections are usually incurable.

Diseases and injuries of the *optic nerve* are generally attended with a destruction of its secretions, and though every other part of the eye may be perfect, no impression is made on the retina by the rays of light in amaurosis. Nothing new or very important is given upon either of these subjects, and most of the remarks respecting the optic nerve are derived from the writings of Mr Ware.

The *gustatory nerves* are sometimes injured by being violently bruised against the teeth, and in illustration, an interesting case related by Sir Everard Home is extracted from the Philosophical Transactions. The gustatory nerves are sometimes disordered in their functions from a disordered state of the stomach, and their natural action can be restored only by remedies that have a power over the latter organ.

The author treats rather more fully of the diseases and injuries of the *auditory nerves*, but yet not so much so as might have been expected considering their importance and extreme frequency. He first gives a case of deafness which was permanent from an accident in which he 'had every reason to suppose that the base of the skull was fractured, that the petrous portion of the left temporal bone was very much injured, and that the portio mollis of the seventh pair of nerves was destroyed, or so much injured as to be incapable of performing its functions.' The reasons for this belief are not assigned, nor do they appear very evident from a perusal of the case. The deafness might have been the effect of effusion, and it seems quite improbable that the patient would have recovered from an accident so severe as the one described must have been.

In those cases in which the functions of the auditory nerves are only impaired, the patient is troubled with noises of various kinds, though he is unable to hear sounds to which he has been accustomed; 'but when the functions of the nerves are entirely destroyed, the patient does not complain of any noises.' In one case of this kind, in which the author thought that the Eustachian tubes might be closed, he punctured the membrane of the tympanum of each ear without producing the slightest effect.

Diseases of the meatus auditorius externus are also attended with similar noises, though some have denied the resemblance

and pretended to determine, by the peculiar character of the sounds, whether the deafness arose from an affection of the meatus or of the nerves themselves: the author however does not think this practicable. He concludes his observations on this subject by a paper which he formerly published in the *Medico-Chirurgical Transactions*, on the *Portio Dura* as assisting the *Portio Mollis* in the function of hearing, but as we have already presented some account of these *Transactions* to our readers, it is unnecessary to give an analysis of this paper.

In the next chapter on the 'Diseases and Injuries of the nerves of voluntary motion, &c. in general,' he notices the well known fact, that in paralytic affections the sense of feeling is oftentimes unaffected or but slightly impaired, whilst the power of voluntary motion is completely destroyed, and endeavours to explain it 'by supposing that the muscles of voluntary motion require the nerves to be in the most perfect state to enable them to act, and that a less degree of perfection is necessary for them to perform the functions required for the sense of feeling.' This explanation will probably be considered satisfactory when we reflect upon the kinds of stimuli which act upon the nerves to produce these functions, those operating on the nerves of feeling are mechanical, whilst the nerves of voluntary motion are put into action by the agency of the will alone.

The diseases of the nerves of voluntary motion, he divides into active and passive; the first being attended with pain, embrace a variety of affections, such as *tic douloureux*; the passive are those diseases called paralysis. The local complaints included in the first class, he believes, in common with most writers of the present day, 'to be only symptomatic of a general irritability of the brain and nervous system.' The failure of topical means and of the division of the nerves in these complaints seem very fully to warrant this opinion. Women are said to be more subject to them than men, which is accounted for by the greater irritability of their nervous systems. When these affections are confined to the nerves of the head and face, they are known by the names of *hemicrania*, *tic douloureux*, &c.; the pain in the latter is usually of an intermittent character, returning at pretty regular intervals, with constantly increasing severity unless means are employed to mitigate its violence. The whole system is generally somewhat affected in the beginning, the pulse is a little quicker, 'the appetite is commonly bad, and the spirits depressed.' When the pain is constant and confined principally to the head, there is reason to suspect that there is disease within the cranium; if it inter-

mits, extends down the face, be not increased by the use of wine, nor lessened by bleeding from the arm, 'it may be judged to be an affection of the nerves without the cranium.' There is great obscurity respecting the causes and nature of this complaint, and the author is at some pains to show that it is not an inflammation of the nerves, though an increased action of the blood vessels of the part may sometimes contribute to it. It is unnecessary perhaps to follow him more in detail through this part of the subject, his views appear to be correct, and in accordance with the opinions of the best informed professional men of the present time.

In the treatment of the complaint, he relies chiefly on restoring the appetite, digestion and tone of the system. He thinks very highly of bark administered in 'doses, from half a drachm to a drachm every three or four hours, day and night;' he speaks of arsenic as a doubtful remedy, requiring great caution in its use, and advises that mercury should be sparingly, if at all, employed. When the complaint is confined to a particular nerve, and the means recommended have been followed by no beneficial effect, he thinks it best to try the arsenical solution, belladonna, cicuta, stramonium and the division of the nerve, and if all these should fail, a seton or issue near the affected part may give relief. He enumerates the nerves of the head and face that are most usually affected, and describes the manner in which they can be divided with safety and ease.

A chapter is devoted to the examination of the painful affections of the nerves in various parts of the body, and some cases are given. Whenever it becomes necessary to divide a nerve, the author advises that a portion of it should be removed, for unless this be done, its functions will be restored before any considerable change can have been effected in the system, and the train of morbid symptoms which afflicted the patient, will again return. There is a strong reason for believing that this will not be the case if a portion be removed, as there seems to be but little doubt that the nerves do not anastomose like the arteries, and that the morbid affection is restored only by a restoration of the functions of the affected nerve.

The nerves are not unfrequently inflamed, though they are rarely the seat of idiopathic inflammation, but it most often arises from the affection of the neighbouring organs. In sciatica, our author thinks that there is probably an inflammatory action in the neurilema of the sciatic nerve, 'which frequently ends in an effusion of serous fluid.' Nothing new is suggested in the treatment of this disease, but reliance is placed principally on general depleting remedies, if the habit of the patient be robust,

and in some instances, small doses of stramonium, and the submuriate of mercury, together with setons, blisters and other topical means, have been found useful.

When a disease has existed for a length of time in a limb, the nerves frequently become enlarged, and sometimes ulcerate. In the latter case the pain is excessive.

Tumours sometimes exist in the nerves, attended with great suffering to the patient, which is much aggravated by the slightest pressure. They are sometimes situated in the subcutaneous nerves, and at others in the larger ones. They always require extirpation, and it is better to remove portions of the nerves with the tumours, unless they are situated in the large ones, than to attempt to dissect them away. It appears to be well established that it can be done without danger, and that no injurious effect attends the removal of a portion of a nerve, other than that of a paralysis of the part to which the nerve is distributed. In removal of tumours situated in the course of the sciatic nerve, the author advises to leave if possible the fibular nerve, otherwise there will be a complete loss of sensation and motion in the limb; and he prefers generally the division of the large nerves to the removal of a portion of them, from the very great inconvenience the latter operation occasions to the parts to which the nerves are sent. But when the tumour is situated in one of the smaller nerves, there should be no hesitation about removing as much of it as may be necessary to extirpate the diseased parts.

When the nerves are divided accidentally, the edges of the wound should be brought together by sticking plaster, if possible, and if not by the interrupted suture. They frequently heal by the first intention, which it is very desirable to effect, and the patient suffers but little inconvenience. But when they do not, granulations are formed as in other parts, and there is sometimes a secretion of pus and at other times not. When the external air is completely excluded, both these processes usually go on without producing much irritation. A considerable time frequently elapses after the healing of the external wound before the ends of the divided nerve unite; in such cases the author advises frictions of the part with rubefacients and the use of galvanism.

In punctures or partial divisions of the nerves, the pain is much more severe than in those cases in which the nerve is completely divided, and the mere division of it is in many instances sufficient to remove all the distressing symptoms. Sometimes the pain is felt at the moment of the injury, at others not till some time after, but the cause of the difficulty is easily under-

stood by attending to its seat, peculiar effects and symptoms. In complete divisions of the nerves, the divided ends retract, but in partial divisions, the divided portions only retract, and the remaining parts of the nerve are stretched, and it is this which produces the severe suffering that is experienced in such cases. The partial division of the nerves of animals however does not appear to be followed by consequences so serious; they rarely suffering more than when a complete division has been made. If this be a fact, and Mr Swan states it as the result of his own experiments, it is certainly a very curious one, and seems to show that the nerves of man are more delicate, and perhaps destined to perform functions of a higher and somewhat different character from those of animals. Our author suggests that it may be connected with the influence of the mind upon the body, but how or in what way this influence is exerted to produce this effect he does not attempt to show, nor are we very well able to understand.

A case is quoted from Sabatier to prove that the wound of a nerve may be the cause of the symptoms, independent of inflammation; now one would think that this is clearly demonstrated in many cases by the immediate and instantaneous manner in which these symptoms sometimes follow the injury, long before there has been time for the commencement of an inflammatory process.

A few observations are given upon that species of tetanus which arises from the injury of a nerve; when confined to the muscles of the jaw the patient usually recovers, but when it affects the whole system, all remedies appear to be nearly equally unavailing, though opium has the preference of every other; a blister applied to the wounded part has restored the secretion of pus and relieved the patient.

A ligature applied to a nerve is frequently followed by alarming effects, and death has in some instances been the consequence. We make the following extract, not because it contains any thing very striking, but as it gives a fair specimen of the author's manner, and is upon a very interesting and important subject.

‘In my opinion ligatures ought not to be put on nerves for any purpose, as it can be very seldom necessary to employ them; and if there be an apparent necessity, as was done by Mr Hunter, in a case related by Sir Everard Home, after he had removed a tumour from the musculo-cutaneous nerve, still, I think, every other method should first be tried, before so dangerous an expedient is resorted to. In any other case it never could be necessary, than when there is a profuse hemorrhage, and, then, I think, the vessel may gene-

rally be tied; but should it happen as it did in the operation performed by Mr Hunter, that the vessel cannot be secured without including the nerve in the ligature, would not the actual cautery be preferable?

‘When, however, the application of a ligature is decided upon, it ought to be fine, and strong enough to allow of being drawn so tight as to completely strangle the part of the nerve on which it is applied, for then the nerve is brought nearly to the same state as when it has been simply divided. On the contrary, if the ligature were coarse, it would occasion greater irritation in the wound, and consequently in the nerve, and thereby increase the danger to the patient. And unless the nerve were so firmly compressed by the ligature as to prevent all communication of sensation, and likewise circulation of blood between the two portions of the nerve, the ligature would cause such an enlargement of both its extremities by the irritation it would create, and would be with such difficulty dislodged, that if the patient should not suffer extremely at the time, it would most probably cause the formation of a tumour, producing so much pain as gradually to wear out his strength.

‘Larrey relates the cases of two patients who died of tetanus; in one, where the arm was amputated, and the median nerve had been included in a ligature with the humeral artery; the portion of nerve below the ligature was swelled out like a mushroom, and that above was much enlarged, and of a reddish colour. In the other, nineteen days after the amputation of the leg, the extremities of the nerves were swoln in the same manner, and adhering to the surrounding parts. Portal relates a case, where this tumour formed above a ligature that was put on the sciatic nerve after amputation of the leg. The patient had suffered horrible pains for more than two years, which he always referred to the end of the foot; and after death this tumour was found.’ pp. 141–143.

Compression of the nerves when long continued, produces a loss of sensation and motion in the part to which they are distributed; but if the compression continue a short time only the effects are temporary.

The XIVth chapter, the last but one in the book, is entitled ‘An Experimental Inquiry into the process Nature employs for repairing wounds of Nerves.’ With a view of ascertaining the manner in which divided nerves unite, and to determine whether their functions are restored when this union takes place, the author instituted a series of experiments, a detailed account of which he has given. Nothing certainly can be more decisive than the experiments of Dr Haighton in relation to the power of the nerves after their union, in his valuable paper published in 1795, in the *Philosophical Transactions*. ‘He divided both nerves of the eighth pair in a number of dogs, either both at the same time, or one after the other, allowing only a few days inter-

val, and to be certain that death was always the result of the division of both the nerves, he suffered six weeks to elapse between their division in another dog. The animal recovered perfectly. It follows either that the cicatrix of the first divided nerve transmitted the nervous influence, or that the functions were re-established between the first and second operation, by means of anastomoses. To remove all doubt upon the subject the two reunited nerves were divided a second time in the same animal, and he died; it was by means of the cicatrix therefore that he had lived.* These experiments appear to us to be perfectly decisive and though Richerand and some others may affect to deny, that the cicatrix of the nerves possesses the same character and is capable of performing their functions, they must point out some fallacy in these experiments, which has never yet been done, before they can hope to gain many proselytes. Beclard, whose opinion on physiological subjects is entitled to as much respect as that of almost any man living, considers the question as being decisively settled by them. Believing, therefore, as we do, that this subject is placed beyond controversy, it is perhaps unnecessary to follow our author through his experiments, as all those which were instituted with a view to ascertain if the functions of the nerves were restored after their union, go to confirm the conclusions of Dr Haighton, and nothing new is brought to light as to their mode of union by his other experiments.

A very beautiful coloured engraving, 'being an exact representation of a dry preparation made by the author to show the distribution of the nerves most affected in *tic douloureux*' is prefixed to the volume, and two others of an inferior character, though very good, are given at the end.

We consider this work upon the whole to be valuable, without possessing any very strong claims to originality, because it embodies in a simple form most of what is known upon a very important and interesting subject, and it is this, rather than any peculiar merit of the work, that has induced us to give so full an account as we have done of its contents. Every thing connected with the pathology of the nerves is interesting, not merely on its own account, but as a means of making us better acquainted with their functions; and it is certainly remarkable, that though no part of the economy has of late years received more attention than the Nervous System, yet there is no one, respecting whose functions, there are still more doubts and greater uncertainty. What may be strictly termed the Anatomy of the Brain and Nerves is now well understood; the situation, structure, origin

* Additions à l'Anatomie Générale, par P. A. Beclard

and course of the various parts have been minutely investigated and explained, but yet how little do we know of the functions of these organs, how ignorant are we of the precise nature and comparative degree of the cerebral influence, and of that of the medulla oblongata and spinal marrow, of nervous sympathy, and in fact of almost the whole nervous physiology! What, for example, are the functions of the ganglions? Are they merely designated, as some have maintained, to assist the distribution of the nerves, or have they more important uses? In what way are we to consider the great sympathetic; is it a nerve arising from the brain and spinal marrow, like the other nerves, or is it, as Bichat, and since him Gall supposes, a mere medium of connexion between the ganglions? Are we to believe that this nerve with the ganglions forms an independent system, or are we to admit with Haller, Scarpa and Legallois, that it is under the cerebral influence? What connexion has the nerves with inflammation, absorption, exhalation and secretion? Are these great processes going on independent of them, or are they modified, controuled or influenced by the nervous power? What is the influence of the nervous system upon the action of the lungs and heart? Are the opinions, or as they were called by the committee of the Institute, the 'discoveries' of Legallois, upon these points generally acknowledged to be correct; or is there not so much doubt and uncertainty about them as to leave the subject in nearly as great obscurity as he found it? His experiments have been accurately repeated, and the same results have for the most part been obtained, but how different and opposite even in some instances are the inferences that have been drawn from them?

Much of our ignorance on these points depends no doubt on the extreme difficulty of investigating these subjects, on the inadequacy of the means which we have it in our power to employ, and the consequent uncertainty of the results. Experiments on living animals have been resorted to again and again to elucidate these points, and there is now upon all of them nearly as much division of opinion as among the earlier anatomists. These experiments, which are unfortunately among the best means we have of investigating these subjects, seem to be less calculated for it than for the elucidation of almost any other point of physiology. The extreme sensibility of the nerves and the consequent suffering of the animals must throw doubt and obscurity over all the results. In fact, different authors have found great variety in the same experiments, and the same authors have discovered, that the effects produced by the same experiments are different according to the animals employed.

The very fact that so much obscurity still hangs over many

points of the nervous physiology is a strong presumption, that the best mode of investigation has not yet been pursued. There are many parts of the subject which from their very nature must remain forever in uncertainty. We can never expect to know the precise means by which the nerves convey sensation and motion to the other parts. And we must content ourselves to remain forever in ignorance of the manner in which mind is connected with matter, and the method by which they operate reciprocally upon each other. If our views however are confined to practical subjects, and these after all are the most important, much may be learnt by carefully observing the operations of the nervous system in health and disease, and we may thus ultimately arrive at a knowledge of the laws by which this system is governed in its operations. Q.

ARTICLE II.

A Treatise on Domestic Medicine; pointing out in plain language, and as free from Professional Terms as possible, the Nature, Symptoms, Causes, probable Terminations, and Treatment of all diseases incident to men, women and children, in both cold and warm climates; and also appropriate prescriptions in English, and the doses of medicine which are suitable to different ages. Including likewise effectual means for preventing the extension of all infectious diseases, and annihilating the power of every kind of contagion; and rules for enabling Europeans who visit a warm climate, to escape the yellow fever, and long enjoy a good state of Health. By ROBERT THOMAS, M. D. Honorary Member of the Literary and Philosophical Society, as also of the Historical Society of New York; author of the *Modern Practice of Physic, &c.* First American edition, with many valuable additions of the author not hitherto published. Revised by DAVID HOSACK, M. D. Professor of the Institutes and Practice of Medicine in the University of New York. New York: published by Collins and Co. 189, Pearl Street. 1822. pp. 500.

THIS is truly the most portentous title page with which in the course of our long labours as reviewers we recollect to have come in contact. The art of medicine must indeed be fast approaching that state of philosophical simplicity, exactness and concentration to which it is so very desirable for the interests of mankind that it should arrive, when within the compass of a volume of five hundred pages, any individual of com-

Vol. XII.

mon capacity, however ignorant of the elements of medical knowledge, may be taught how to discriminate, and prevent or cure, all the diseases, of all sorts of persons, in all climates, and under all circumstances—for so this immeasurable bill of fare of Dr Thomas promises. We were indeed in some fear that the faculty were to be altogether shut out from participating in the advantages which this work presents; but we are sily informed in the preface, that medical students and young practitioners may find it for their edification to consult it.

It would seem very clear that the doctors have been for some hundred years entirely in the wrong about this matter of the study of medicine. Can it be necessary that they should dissect, and read, and walk the hospitals, and drudge through all the dirty business of dispensaries and almshouses to acquire experience, when any common individual may learn to treat diseases by the study of Dr Robert Thomas' Domestic Medicine alone? If any hypochondriacal old man, or nervous old woman may become *au fait* in the science by this course—a *fortiori* those who have spent days and nights at the desk or the dissecting table, who have acquired already the rudiments of medical education, may hope in the same way to establish their claim to a little of the confidence of the world. But no, one word from any of these worthy disciples of Buchan or Thomas will go further than the best reasoning from a well educated young physician of the schools. Want of experience is the cry, with which young men are greeted at their outset in practice. We do not complain of the objection, it is a well founded one—but how is this to be reconciled with the encouragement, the cordial reception always given by the public to Family Physicians and Treatises on Domestic Medicine!

But, to be serious, the work before us is deserving of a more severe reprehension, than any of the numerous ones of the same general character which have preceded it. We see upon the title page, the names of two individuals, both calculated to give it popularity and currency; and both of course in some measure pledged for its value and utility.—One of them the author of a System of Modern Practice, which has been received among us with such undue commendation, and obtained a circulation and confidence totally disproportioned to its merits—the other a distinguished professor in the university of a neighbouring state; a man possessing, and no doubt deserving, a great and extensive reputation, which he has been willing to jeopardize by suffering his name to appear in countenance of such a book as this. But besides this circumstance, the character of the work itself is such as to make it a more potent instrument of mischief than

most of those which have gone before it. Its author is not contented with giving a few innocent directions, and prescribing a few family nostrums, and then recommending the calling of medical advice to help on what has been done right, and counter-act what has been done wrong. He encourages his pupils to yet more adventurous exploits; he puts them upon struggling with the giants of disease, and calling to their aid the Samsons of the *Materia Medica*; and after beginning upon their patients with bleeding, emetics, calomel, &c. to wait upon them out of the world *secundum artem*, with tonics, opium, brandy, &c.

In short, he seems to have done little else in the preparation of this book, than cull out the most intelligible and simple parts of his *Modern Practice*, translate a few passages which were *too learned*, into language a little more plain and less professional, erase portions which contained information too curious and marvellous for the uninitiated, and then, having composed an introduction on the non naturals, found a new name, and arranged a new title page, palmed the affair upon the world as a new book. For the truth of all this we do not pledge ourselves; heaven forbid that we should have gone deep enough into the volume to be able positively to assert it on our own experience; but the occasional excursions which we did make into it, reminded us strangely of the dull and heavy hours, when we plodded through the weary pages of his *Modern Practice of Physic*.

Now it seems to us very clear, either that this book is good for nothing or worse, or else that the medical profession is good for nothing. This is a conclusion which cannot well be avoided. It contains directions not merely for the treatment of mild cases, the administration of common medicines, but goes into all the details of the most grave and unmanageable diseases. Is Dr Thomas serious in believing that the head of a family can be safely entrusted with the care of a case of inflammation of the lungs, or of bilious fever, through all its stages, and with all its dangers? Has not he with all his various learning and experience, ever felt the responsibility of an arduous case lie heavy upon his shoulders?—Has he never felt that the difficulties of an important disease, are often almost too much for one physician even to encounter alone? And will he encourage fathers and mothers and nurses to come forward and assume this responsibility themselves?

He will say, perhaps, that he does not intend to induce people to undertake the treatment of severe cases themselves, or even any thing further than the management of the incipient stages of disease. Why then has he not fashioned his book more according to his intentions? Why does he never say, thus far may

you treat and no further? There is no hint or indication so far as we know, by which any of his disciples are to judge that they should stop; till their patient is under the sod. And we ask him, how in the name of common sense, they are to find out, when they have done all of which their puny hands are capable, and when they have not; when the disease is of such a nature, and in such a stage, as makes it safe for them to wrestle with it, and when it is not? It is indeed most preposterous, to put a book into the hands of common people, containing complete directions for discriminating and treating all diseases, with the expectation that they should be able to say, when it was proper for them to resign the patient, and when for the physician to take him. Surely none but a physician is capable of pointing out the critical moment when quackery should end, and science begin. Will Dr Thomas stand by, while parents dose their children according to his directions, watching the alterations of symptoms, the progress of disease, till the period has arrived when it is his duty to interfere—to say, ‘You have done all you can—now let me take hold!’

But will he say, ‘I have written my book as I have, because I intended it to serve as a companion for the young physician, as well as for family use?’ Worse still. Can he soberly believe—will he deliberately affirm, that any book which shall be a fit or useful manual for a physician to consult, can be a fit or a safe guide for families to use, and to follow, in the treatment of diseases? Such a notion is too absurd to be for a moment admitted. That a book might be so adapted as to be fit both for the student, and individuals out of the profession, is not perhaps to be denied, but not one of this character. The fact is, that works containing the whole details of science within a small space—compendis, manuals, vade mecum, &c. let them be ever so well put together, are not the most intelligible or the most useful to beginners or to extra-professional readers. They do exceedingly well, if employed, by one already versed in medical knowledge, as books of reference—they serve to recall to his mind things which he has overlooked or forgotten—they furnish hints and suggestions which bring together and concentrate the knowledge already in the mind, but they are of little value as original sources of knowledge themselves. Show us the man who has derived his notions of pathology and practice principally from works of this kind, and you may be sure he is a narrow and unenlightened practitioner.

In this point of view, the first work of the author before us was not without some value. One who was previously well read in his profession, might occasionally consult it with advantage. But what

can be said for it when we have it served up in another form, and put into the hands of persons totally unqualified to understand it, or profit by its directions? Can we expect that they will be able to make the distinctions which Dr Thomas lays down between his four or five kinds of fever? What common man will be able to draw the line between the inflammatory fever and the typhus, or between one kind of typhus and another? Would not the very attempt to make these discriminations, perplex, disturb and confound even the most judicious minds? Do not physicians themselves find that it is impossible to draw those accurate lines of distinction in real life, which are laid down so clearly in systematic works? But common people are led, and young men in the medical profession are led, by the perusal of such books as this, to believe, that the genera and species of fever are as distinguishable as those of plants or animals, and it takes many years to convince them of their error.

We acknowledge it to be very desirable that more liberal ideas upon medical subjects should be diffused in the community; that it should become more enlightened with respect to a science in which it is so deeply interested. But treatises on Domestic Medicine are not the engines by which this is to be effected. They disseminate the wrong kind of information. They give a few petty details of the symptoms and treatment of the particular diseases to which we are subject, but teach none of the great principles upon which the phenomena of both health and disease proceed, and without which these details are no better than the jargon of an unknown tongue.

The circulation of such books as this tends exceedingly to perplex and render uncomfortable the practice of the physician, by communicating a quantity of crude half digested ideas upon medical subjects, to many individuals, who immediately fancy themselves qualified to judge and criticise the opinions and conduct of their medical advisers. They conceive themselves authorized to require a reason and an explanation for whatever is going forward. And what is more embarrassing than to be expected to make a case clear to one who is not capable, from want of knowledge, of comprehending it? What more vexatious than to be required to do this, when you are in doubt yourself—where every medical man would be so too; and yet where the expression of that doubt would be to forfeit at once the confidence and good will of your patient or his friends?

It is by the interference of this race of knowing ones, that physicians are frequently not called in to the management of diseases till they have advanced too far to be checked by remedies. Every one is aware that in the great majority of acute

cases, the benefits of medical treatment are to be expected within the first few days if at all—that if the affection is not removed or controlled by the first impression of the means used, it must be principally left to the curative efforts of nature. An hour lost at the commencement of a disease, will often prove to be a day lost in the time of its termination. There is no such thing as getting over the evil consequences produced by a delay in the application of the proper treatment. And yet these people often expect that the practitioner called in under this great disadvantage, will be able at once to penetrate and unravel the tangled skein of phenomena produced by the united operation of the disease itself, and their injudicious interference.

Among ourselves indeed we have little reason to complain. Books of Domestic Medicine, we are thankful, are not numbered among the classics of our firesides, and we have therefore little personal concern in the question as to their value. We only feel upon this subject as members of a dignified profession, and regret that any *legitimate* member of it should have so far forgot its honour and interest as to descend to manufacture or countenance such a book. We are aware that remarks of this kind from physicians are often attributed to a narrow and illiberal policy, which induces them to act with a single view to their own interest, and to discourage the perusal of medical books from a selfish fear that it will diminish the profits of the profession. This is a false impression, because if any thing can tend to increase the quantity of medical business, it is the administration of powerful remedies by those unacquainted with their virtues. And, further, some perhaps imagine, by resorting to these short treatises upon diseases, that they get at very simple methods of treatment, that a great deal will be left to nature, and that the objection of physicians arises from an overweening confidence in their art which makes them despise and undervalue these efforts. But on the other hand none are so apt to place all reliance upon medicine, as those who have studied books of this character—none are so disposed to interfere—none are so far from leaving diseases to the assistance of nature. They attribute to the effect of the most simple remedies, what the system does for itself. Is it not found almost invariably, that the more experienced, the more learned a physician becomes, the more highly he thinks of the salutary operations of nature? Who but the physician knows what can and what cannot be safely left to these operations—and what assistance must be rendered to make them efficient and successful? Nature is unquestionably the great agent in the removal of diseases, but she requires to be guarded and assisted. Grant that it is a com-

mon fault among physicians to give too much medicine. Is it not the ignorance and conceit of the half learned and the arrogant which often forces them to it?

We have one more remark to make. We were ashamed to see in a work upon domestic medicine—a work which in spite of all that we can do to the contrary, will be widely circulated—articles upon the venereal disease, and upon gonorrhea. This is too gross. Is it not a disgrace to the author, that in a volume intended to go into the hands of matrons and mothers of families—a volume which is of course subject to the perusal of young women of all ages—fifteen or twenty pages should be devoted to this nauseous and disgusting subject? It is bad enough that in the course of professional duty we are called upon to heal the wounds which licentiousness and debauchery inflict upon their votaries. But that their details should be gratuitously, unnecessarily introduced into a book of this character, where they are to meet the eyes of those, who it were to be hoped, might never know that such a stain on humanity existed, is without apology and without excuse.

As it respects the American Editor, how can he answer for it to his professional brethren, or to his own reputation, that he has suffered his name to be appended to such a title page as this? We were we must confess surprised and mortified to find that he sanctioned by his authority, a mere money making speculation, as this work must obviously be. We know not with what countenance he can continue to be a teacher of medicine, to require an arduous probation of three or four years for a medical license, when he has thus expressed his opinion that a book of this character is fit to be intrusted in the hands of the multitude. Had we not seen a name which we have been always accustomed to respect, thus attached to it, we should not have noticed this work; but as it is, we could not feel justified in withholding the expression of our entire and unqualified disapprobation, both of the book itself, and the plan upon which it has been written.

V.

ARTICLE III.

Essays on Surgery and Midwifery, with Practical Observations, and Select Cases. By JAMES BARLOW, Surgeon. With Plates. London, 1822.

“ON MIDWIFERY.”

WE shall confine our analysis to the second part of Mr Barlow's volume. It deserves to be ranked among the useful practical works which within a few years have been published on Midwifery. Mr Barlow has successfully and reputationally practised his profession for many years, and though living at a distance from the capital, and in very laborious practice, has found time to communicate many useful papers to the public, and has now come forward with a volume respectable both for its size and its contents. He regrets in the opening of his work, that when he was a student, so little was required to enter practice, and congratulates the profession that the legislature has interposed its authority for the safety of the public, and the honour of medicine. The defects thus honestly avowed, are occasionally to be discovered in the work itself. The style, though sufficiently plain, is not often elegant, and occasional confusion occurs, and a mingling of topics, which though they be useful and interesting, would have produced their effect more surely if a better order had been preserved. We have noticed these things in the beginning, that our analysis of what is useful may not be interrupted by criticisms of defects, and we trust that we shall be able to satisfy our readers, that the opinion we started with of the value of the work, is supported by what will now be offered of its contents.

“AN INQUIRY INTO THE VARIOUS OPINIONS ADVANCED BY WRITERS ON MIDWIFERY, RESPECTING THE MANAGEMENT OF THE PLACENTA.”

This is the heading of the first midwifery essay in the volume. Mr B. begins by remarking that the opinions held on this subject may be arranged under three classes. According to the views embraced in the first, the placenta should be extracted immediately after delivery. According to the second, it should be left entirely to nature. The third prescribes a middle course. Without however entering at once into the subject, he is led to inquire into the genuine character of labour, with a view to learn

whether there be any circumstances in the structure of the human pelvis, or in any thing else, which necessarily renders delivery a painful process. Although this inquiry has no very intimate connection with the immediate objects of the essay, still he brings into view a good deal of useful and interesting matter. The amount of the whole is, that Dr Osborne, who laboured so diligently to prove that labour was necessarily accompanied with much suffering, has taught a great deal of error, and that the curse in Genesis is rather *prophecy*, than an *immediate* physical infliction, the effects of which were to be transmitted from the first parent. Mr Barlow supports his opinion by abundant evidence furnished by travellers, who agree in their representations of the perfect ease and safety with which delivery is accomplished among the uncivilized, and this too under every variety of climate, and under all other sorts of circumstances of varied life. He then goes on to show, and with much ingenuity, that the difficulties of parturition are to be ascribed to the direct effects of civilization.

In entering upon the more immediate objects of the essay, he begins with the earliest opinions on the management of the placenta. After speaking of the natural expulsion of the placenta, the author observes,

‘It will nevertheless be acknowledged, that the powers of nature are sometimes inefficient, and that the placenta becomes preternaturally retained in the uterus, beyond the usual time: on this account artificial assistance is requisite: and under the following heads may be included the chief difficulties connected with the present enquiry.

‘I.—Atony of the Uterus attended with flooding.

‘II.—Irregular and Spasmodic Action of the Uterus and Encysted Placenta.

‘III.—Morbid adhesion of the Placenta and Uterus to each other.’—p. 202.

The following extracts relate to these subjects.

‘A passive state of the uterus and retained placenta, is sometimes accompanied with insidious hæmorrhage; in which case, our conduct must be governed by the quantity of blood lost in a given time. When such an occurrence takes place immediately after the delivery of the child, and continues without intermission, till its effects are obviously manifested on the general system by a weak fluttering pulse, pallid countenance, clammy sweats, cold extremities, fainting, with *tinnitus aurium*, &c. &c. the patient becomes exhausted and would soon expire if the symptoms were not instantly counteracted. In these alarming instances, the most prompt and decisive measures should be employed effectually to remove the contents of the womb,

by promoting its muscular contractions in the way above-mentioned.

‘To aid our efforts in this perilous situation of uterine hæmorrhage, I have frequently witnessed the most powerful and desirable effects from an opiate clyster thrown up the rectum, composed of four or six ounces of cold water, and eighty or one hundred drops of Tinct Opii: and an astringent injection of the same temperature may be also injected into the vagina or uterus, to moderate the inordinate discharge of blood, by producing coagula in the mouth of the vessels that open into that organ.

‘The injection for this purpose may be composed of ten ounces of cold water, or a decoction of oak bark and fifteen or twenty grains of alum, and be repeated at discretion.

‘A recumbent posture should be strictly observed, and a cool apartment selected for the patient till the flooding has entirely ceased, after which a more nutritious diet may be allowed, and mild cordials indulged in, adapted to the debility to which the woman has been reduced by hæmorrhage.

‘If these means fail in arresting the flooding, recourse may be had to the internal application of the following medicines with beneficial effect.

℞. Plumbi Superacetic gr. iij,
Opij Purif—gr. ij.
Confec Aromat q. s fiat
Massa in Pilulas vj. dividenda,
quarum capiat una tertia vel quarta quaque hora.

℞. Potassæ Nitratis gr. x.
Tinct Fol. Digital gutt x,
Tinct Opij.—gutt xv.
Infus Rosæ—3 i.
M. fiat haustus tertia quaque hora sumendus.

‘In conjunction with the above remedies, I usually make use of topical applications, such as cloths wrung out of a solution of common salt in vinegar and water on the region of the abdomen; or if the season of the year produce ice, a bladder may be filled with it bruised and laid on the same part, and renewed as occasion may require.’—pp. 219-221.

‘Sometimes a passive discharge of blood or vent of coagula will at intervals take place, in which case, it becomes necessary to keep in view the strength of the patient, and the quantity and quality of the evacuation,* before manual assistance be attempted. In some

* ‘In a few instances of profuse hæmorrhage from the uterus, I have adopted the use of cold water injected into its cavity with advantage, by means of an apparatus similarly constructed to the one described by Jesse Foot, in his cases of the practice of Vesicæ Lotura, with the addition of a bladder fixed to the end of the flexible tube or catheter, which may be conveyed in a collapsed and empty state into the uterus, where it is to be retained as a receptacle for the cold water when forced from the elastic gum bottle previously adapted to the other end of the catheter.

‘This mode of suppressing hæmorrhage, by the application of cold to the internal superifice of the uterus, may be repeated as often as deemed necessary, by alternately evacuating and renewing the contents of the bladder, and without withdrawing the instrument, by which process the temperature of the uterus and vagina are reduced below their ordinary standard, and the distended bladder pressing on the extremities of the bleeding vessels of that organ, the hæmorrhage may be further restrained.’

instances a person with scarcely bear the loss of a small portion of blood, without incurring danger, while another under apparently similar circumstances will lose many pounds with comparative impunity; and in some plethoric habits, where the circulating system has been much accelerated by tedious labour, there is frequently a considerable flux of blood immediately succeeding the birth of the child, and before the uterus has had time to contract, and eject the placenta; which discharge, if neither profuse nor incessant in a full state of body, may be attended with advantage to the patient, by unloading the turgid vessels of the uterus, and preventing subsequent fever, &c.

‘If, however, the woman be debilitated by active hæmorrhage without intermission to an alarming extent, exhibiting the usual symptoms of danger; we must in this case proceed to extract the placenta without delay, as a trifling loss of blood when uninterrupted, may eventually prove fatal in a robust as well as in a delicate constitution.

‘We cannot always draw a certain prognosis from the cause of the hæmorrhage, nor judge how the case will terminate from the quantity of blood lost, as young persons bear depletion better than those more advanced in life.

‘A woman may be cheerful and apparently bearing the loss of blood without danger, with a pretty strong pulse, not exceeding ninety strokes in the minute, and die instantly; while another may have a pallid ghastly countenance, attended with sickness, dimness of sight, coldness of the extremities, loss of memory, and pulse scarcely perceptible, and still recover.

‘Another may have these alarming symptoms, and yet linger several weeks or months, and eventually die of dropsy.’*—pp. 221–223.

‘Sometimes the navel string is implanted near the edge of the placenta, and a partial separation from the uterus is the consequence; during which a portion of it may get wedged in the axis of the pelvis, or cervix uteri, so as to block up the passage, and an hæmorrhage take place into the uterine cavity, and produce fainting and distention of the abdomen. Such an occurrence should not be overlooked, and it requires an early investigation of the state of the parts, as well as of the time during which the extravasated fluid has existed in the uterus, lest putrefaction and absorption take place. By this enquiry the accoucheur will be enabled to regulate his proceedings. Thus situated, it may be prudent to accomplish delivery by taking hold of the funis with one hand, and keeping it distended, while the fingers of the other are insinuated along the cord; by which means the position of the placenta may be adjusted, and if no

* ‘I wish to impress on the mind of the accoucheur, that his attention ought not to be limited altogether to the quantity of blood lost, but keep in view the impression made on the system, as a more certain prognostic, for this will *cæteris paribus* be in proportion to its violence.’

other obstacle intervene, it may be extracted without delay as before directed. If, nevertheless, its detention in utero arise from a temporary defect or suspension of the contractile powers of that organ, in consequence of being harrassed by officious interference or exhausted by protracted labour, in either case, by gentle pressure on the abdomen with the hand, the substance of the uterus in the region of the pubis will convey an uncontracted and flabby feel to the touch, and not that tense globular sensation which is usual in cases where art has not interposed, and where nature is able to effect her own purpose. On these occasions, it but too often happens that hæmorrhage immediately follows labour, and the accoucheur should scrupulously avoid pulling at the funis, lest a disruption or detachment of the placenta, from its connection with the surface of the uterus, or an inversion of this viscus follows; which event might, through temerity or inattention, expose the woman to imminent danger.*—pp. 226-228.

‘There are instances of *concealed* uterine hæmorrhage, which I have reason to believe merit more attention than what is usually bestowed on them. In this obscure affection, a circumscribed portion of the placenta is detached from the uterus during gestation, whilst the membranes adhering around,* the blood is empaled in this local space between them and the *parietes* of the uterus. It is probable that this separation of the two surfaces is frequently the consequence of some sudden and unexpected jolt or concussion of the body, by which an effusion is produced; and on remaining in this situation for a time, inflammatory action is excited, a deposition of coagulable lymph or morbid affection of the placenta is the consequence, and a disparting of the connecting blood-vessels of the two organs the result. Such an occurrence may be ascertained on an enquiry into the proximate cause, by a careful examination of the uterine region, which on pressure will give pain to the patient; and the distended *parietes* will sometimes also disclose the part of the viscus where the collection is seated, as though it were in a bag from which no discharge takes place externally to forewarn the accoucheur of danger.

‘If the breach is considerable and the fluid be pent in this enclosure for a space of time sufficient to produce a vitiation of its contents the expulsive action of the uterus will probably be excited prematurely and labour follow; during this event clots of collected blood will be occasionally forced out, and should this evacuation be accompanied with active hæmorrhage in the early months of gestation whether proceeding from fluid blood escaping outwardly or from internal disruption of the vessels which communicate with the

* ‘Albinus relates a case of this kind. Vide Acad. Annot. lib. I. page 56. See also M. Baudelocque and Leake, on childbed fever, vol. II, page 294.—Noortwyk, in his History of the Gravid Uterus, has, though contrary to the opinion of most Authors, asserted that the parts will adhere again and gestation be completed, see page 21.’

maternal portion of the placenta, the os uteri being at the same time rigid and but little dilated, the course to be pursued ought to be first directed towards checking the hæmorrhage, by securing a recumbent posture, cold applications to the abdominal region, plugging the vagina, and injecting a cold opiate clyster up the rectum, which will be generally sufficient to secure the woman's safety. On the other hand, where gestation is completed and these means fail in suppressing the flooding, or preventing increased tension of the abdomen, and the uterine action recurs at regular intervals, and the woman exhibits symptoms of multiplied danger: we may first rupture the membranes and if the hæmorrhage be not soon suppressed, it may be prudent to proceed to deliver by cautiously insinuating the fingers successively through the os uteri by the side of this viscus, till the whole hand has gained admittance. The feet of the fœtus may be seized by the hand, the body turned, and delivery effected in the usual way.'—pp. 229–231.

The following is the treatment recommended by Mr Barlow, in cases of retained placenta from spasmodic contraction of the uterus.

‘In those more complicated affections resulting from a full parturient state, and where the neck of the uterus spasmodically contracts on a small portion of the substance of the placenta, before it is allowed time to be expelled from its recess, or the funis becomes embraced by inordinate action, we meet with an important barrier to its natural ejection; and when hæmorrhage is a prominent symptom, the accoucheur should be guided in his proceedings, by the distension of the uterus, state of the os tincæ, and the fluidity, and quantity of blood lost in a given time. In these cases, a circumspect mode of treatment, and extraction, should be promptly adopted, according to the nature and urgency of existing symptoms, as an apparently trifling delay may sometimes expose the woman to irretrievable debility or imminent danger.

‘But prior to artificial means, it may be prudent to attempt to subdue the inordinate vascular action of the uterine system, by the administration of an *Enema* up the rectum, composed of six ounces of cold water, and 120 minims of Tinct. opij, with a drachm of assa-fœtida, and a draught may also be given containing 60 drops of Tinct. opij. If under such inauspicious circumstances, the exclusion of the placenta do not take place in a quarter or half an hour, whether it be connected with hæmorrhage or aggravated by the lapse of time, subsequent to the event of parturition; it is satisfactory to know that such preparatory steps will tend greatly to facilitate the manual attempts; as this dernier resource, on such pressing occasions, should be undertaken with the utmost deliberation and caution, and not before the influence of the opiate be perceptible on the system. Previously to this, the patient should be placed horizontally on the bed, on her side, and the accoucheur's finger nails being first pared, and his hand and arm as high as the elbow smeared

with oil or lard, the fingers and hand should then be modelled into a conical shape, and gently introduced into the vagina.

‘ If the spasm of the cervix uteri be so powerful as wholly to environ the funis, the operator should proceed by introducing one finger first, and the others in succession, gently pushing onwards by the side of the funis through the os uteri, with a semirotatory motion, till the whole hand has passed this contracted resistance.

‘ In this situation it should be kept moving for the space of ten or fifteen minutes, or till the spasm of the cervix uteri be overcome. The stimulating motion of the hand will, in some degree, expedite the operation; if the adhesion should be complete, the disunion is much facilitated by a gentle pressure made with the other hand upon the hypogastric region, to steady the uterus.* The separation of the placenta from the upper part, must be first gradually and cautiously attempted by insinuating the ends of the fingers betwixt the membranes and uterus, and sliding the hand from side to side; a disunion will thus be produced, as though it were done by a cutting instrument, through the whole extent of the attachment; and the cake, if possible, should be preserved entire and brought to the cervix uteri, where it may be allowed to remain till the co-operating efforts of the fundus assist in propelling it forwards; by which action, the whole placenta will be excluded, and the operator’s hand may then be withdrawn along with any coagula remaining in the passage. In this, as well as in the compound species of retained placenta, when lodged in the superior recess, whether adhering to, or totally detached from the uterus, forms no cogent objection to the propriety of manual extraction, when aided by antispasmodic medicines as has been before recommended, and keeping in view the state of the patient, and not removing the placenta during a state of *delirium animi*.’—pp. 251–254.

The most formidable cases of retained placenta are those which fall under the third head;—those, viz. which are produced by morbid adhesion of the placenta to the uterus. This adhesion may be owing to a scirrhus, cartilaginous, or ossified state of the placenta. These cases are sometimes to be traced to injury inflicted on the uterus during gestation. Their causes are commonly obscure. The danger is in proportion to the extent of disease in the placenta. As a rule of practice, Mr Barlow lays it down very broadly that we are authorized to remove such portions of the organ as may be easily separated, but never to attempt to remove by violence those portions which are closely and morbidly adherent. The danger in these cases is either immediate or remote, and relate to the extent of the morbid ad-

* ‘ This proceeding is indispensably necessary on all occasions which require the hand to be passed into the uterus, whether in cases of adherent placenta, or in preternatural presentations of the fœtus when employed in turning.’

hesion. If it be but partial we shall find the healthy portion of the placenta to be detached, while the diseased part is adherent.

Uterine hemorrhage will constitute the more immediate danger in this case, and the duty of the practitioner will be to remove entirely such portions of the placenta as are separated from the womb, and are merely attached to the adherent portion, and to employ the ordinary means of inducing the uterus to contract as far as it can, and thus put a stop to the hemorrhage. The remote danger in this case will relate to the changes the mass of placenta will undergo which remains attached to the organ, or in the progress of its slow separation; and similar changes which retained coagula will also experience. These masses will be decomposed, and a fetid discharge occur, and the general system will manifest those disturbances which such a state of things is calculated to produce. To avoid these, injections of antiseptic substances, the greatest attention to cleanliness, ventilation and diet must be practised, and under such management very severe cases have done well. Where disease has attacked the whole mass of the placenta, little if any separation can take place. The distinction between placenta and uterus can hardly be made out, and our attempts to remove the former will be fruitless. No hemorrhage of course will occur. The placenta however will sooner or later undergo some change, portions of it will putrefy, and be detached, and hemorrhage, dependent in its degree on the extent of the separation, take place. The practitioner in this case must remove coagula and detached portions of the cake, and proceed as in the case first supposed. Injections of water containing alum in solution, have been very useful in these cases. The progress of decomposition has been thus checked, and the diseased mass in a state of tolerable preservation has been thrown off, and the patient done well. A case is mentioned somewhere in which ossification had occurred so extensively through the whole surface of the placenta that no separation took place, and the patient died exhausted by the irritation of this foreign body in the uterus.

Mr Barlow mentions the complications of the adherent placenta with hydatids, polypus, moles, &c. &c. and though somewhat out of place, inquires into the nature, and treatment of many uterine diseases.

Following this discussion is

‘A CASE OF LABOUR IN WHICH THE EXPULSION OF THE PLACENTA PRECEDED THE DELIVERY OF THE CHILD.’

In this case the woman had been some hours in labour before Mr B. saw her. Hemorrhage occurred with the pains. The os

tincæ was found firm, and but slightly open. Cool air and a recumbent posture put a stop to the hemorrhage. After some hours Mr B. left her, to be called when any material change took place.

‘Early the morning following, I was requested to see her again, and on entering the house, I found her seated on a chair, in a state of great alarm. I was informed by her attendants, that a profuse discharge of blood succeeded every pain, on requesting her to be conveyed to the bed on which I left her the day before, she attempted to walk up stairs, and before she could reach the bed, a violent pain seized her, which instantly expelled the placenta, and disparted the funis about six inches from the child’s navel. A great effusion of blood followed, and the woman fainted ere she could be laid down on the bed. In this alarming situation, and without hesitation, I determined to effect the delivery of the fœtus by turning, and on passing the hand up the vagina, I found the *orificium uteri* in a lax and dilated state, and the shoulder presenting at the brim of the pelvis, and by conveying the hand past the projecting part of the fœtus, I laid hold of its feet, and brought them down through the pelvis, whilst the shoulder receded backwards into the cavity of the uterus, and thus accomplished the delivery in a few minutes. The child appeared feeble, but soon recovered on being placed in a warm bath. A considerable hæmorrhage followed the birth, on perceiving which, I returned my hand into the uterus, and by keeping it moving therein, for a short time, its contractions were renewed, the hand was then withdrawn, and the flooding abated, and though the woman appeared much reduced by the loss of blood, she soon recovered.’—pp. 273, 274.

A case follows of twins, in which an interval of two days happened between the delivery of the placentas.

‘The woman had been delivered, during my absence, of two fine healthy children. On my return the next day, I found her restless and labouring under much pain, and slight hæmorrhage at intervals; I prescribed an aperient mixture, which produced three evacuations from the bowels, and at bed time a draught containing 30 drops of Tinct. opij.

‘On the following day, I called again, and perceiving her much in the same state as on the preceding, I was induced to lay my hand on the abdomen, which appeared uniformly distended as high as the umbilical region, and rather tender on the application of pressure.

‘These symptoms led me to suspect the uterus was distended with coagulated blood, and I gained permission to pass the hand up the vagina; and to my surprise, found the *orificum uteri* wholly occupied with a *placenta*, which I readily extracted, and a large gush of offensive coagula immediately followed.

‘Soon after this event the woman expressed herself as being much relieved by the change.—For several succeeding days, there were

occasional discharges of grumous blood from the uterus, accompanied with incipient symptoms of puerperal fever, which, after a lapse of two or three weeks disappeared, and the woman ultimately recovered.'—pp. 275, 276.

'ON THE ADVANTAGES AND DISADVANTAGES OF INDUCING PREMATURE LABOUR, WITH A VIEW OF SUPERSEDING EMBRYULCIA, THE SECTION OF THE SYMPHYSIS PUBIS, AND THE CÆSAREAN OPERATION.'

In the following extracts we have attempted to present the reader with the most important facts in relation to this interesting inquiry, contained in Mr Barlow's essay, we regret we have not room for many valuable practical remarks of the author on subjects more or less remotely connected with the present inquiry.

'Premature delivery is practised under certain peculiar circumstances of deformity, for the purpose of giving the mother a chance of bearing a living child which would otherwise have eventually perished under the hand of the operator, at the full period of gestation.'—p. 279.

'It is manifest that premature labour should never be attempted before it has been proved by the event of one or more destructive foetal births, that the pelvis was so much distorted that life must have been unavoidably sacrificed before delivery could be accomplished, because a single fatal instance is not always a sufficient warrant for the operation.'—pp. 280, 281.

'In order that the induction of premature labour should effectually supersede the use of the Crotchet, the accoucheur should be well acquainted with the existing degree of distortion of the pelvis, in every individual case where instruments have been used on prior occasions, as it is manifestly requisite that such deficiency of structure, and dimensions of the pelvis, be not overlooked; for by omitting this indispensable enquiry, the lives of both mother and child may suffer in every succeeding case where gestation is completed.'—p. 287.

'It is also allowed, that cases will sometimes occur in which the head gets immoveably fixed, and cannot possibly be brought through the pelvis with either of these instruments, so that the Crotchet becomes indispensably necessary, when in the succeeding birth, a much less obstacle may exist, and the child be born alive, even without manual assistance.'—p. 288.

The following are the methods employed by Mr Barlow to ascertain the dimensions of the pelvis.

'I.—If when the hand* is conveyed through the vagina to the brim of the pelvis extended, and the fingers kept close together, the side of the fore-finger touch the os pubis and that of the little one, the projecting angle of the sacrum; the distance will be about three inches.

'II.—If on moving the little finger out of the way, and placing the other three conjunctively, in the same diagonal direction as before directed, and their sides come in contact with the pubis and promontory of the sacrum; we may conclude that the space betwixt these two opposing points, is little more than 2 inches, an opening through which no mature foetus can possibly be extracted alive, nor even if we suppose the space to be 2 1-2 inches.

'III.—When only two fingers can be placed edgewise in the fore-mentioned manner, and betwixt the two angles of the short aperture of the pelvis, the extent will not exceed 1 1-2 inches.

'From this last limited extent the accoucheur may feel assured that when the period of gestation is completed, except a greater distance can be obtained, in either of the lateral diameters of the superior aperture, no other mode of delivery is so eligible for the safety of the mother, as either the Crotchet or Cæsarean section. If the accoucheur be not primarily acquainted with the measurement of his hand and fingers, when placed in conjunction with each other, he may after having explored the different apertures of the pelvis, apply his hand to a graduated scale, and he will thereby be enabled to supply the deficiency. In some peculiar conformations of the pelvis, it happens that where the projection of the sacrum is by disease or accident, contorted inwardly and laterally, that the opposite aperture offers a larger space for the reception of the foetal head than what is the case in a natural state; and when using the fingers as a pelvimeter it is indispensably necessary to attend to this circumstance, as a knowledge of such irregular conformation may govern our future plan of conduct. If ignorant of this, by such an avenue left for the entrance of the foetal head, delivery will in some instances be terminated with safety to the child without manual assistance; and in others if the Lever or Forceps be necessary, when used with caution, the lives of both may be preserved.'—pp. 292, 293.

'As the pelvic cavity is completely lined with fleshy texture, the apertures will, it is presumed, be varied a few lines less or more in proportion to the extent of difficulty, and the duration of labour; and these essential circumstances the accoucheur is particularly requested to bear in mind as he proceeds in this enquiry, in order that our adjustments may agree as to the relative proportions between the capacity of the foetal head, and the cavity of the mother's pelvis

* 'A tolerably sized hand methodically directed up the vagina, will readily pass through the aperture of a pelvis, the small diameter of which does not exceed 2 3-4 inches from the pubis to the sacrum, even if the lateral dimensions are contracted.'

during labour. To acquire with mathematical precision by means of the touch, the diversities and disproportions of malconformation incidental to the different diameters of the pelvis during parturition, to resolve in every exigence, how long we ought to rely on the powers of nature, and when these are deficient, to select the best means which art can suggest, in order to accomplish the delivery with becoming expedition, are essential requisites in every accoucheur competent to exercise the obstetric art.'—pp. 294, 295.

'The *Forceps* and *Lever* are instruments well calculated for extracting the fœtus alive, within certain degrees of difficulty and deformity, and claim a preference over other mechanical inventions when used with judgment and caution. If the superior strait of the pelvis from the *symphysis pubis* to the *os sacrum*, or in any part from the anterior to the posterior point, exhibit a space for the reception of the head equal to three inches in diameter, we may not altogether abandon the hope of extracting a living mature child through such contracted limits with either of these instruments: and if the child's head be small, and the bones not too firmly ossified or connected by synneurosis membrane, to move a little over the edges of each other, while at the same time the volume of the head becomes lessened by the combined power of the uterus and abdominal muscles; in these cases, by the united aid of these natural agents, delivery may be sometimes effected, if the superior diameter of the pelvis does not in any part exceed $2\frac{3}{4}$ inches.* On the contrary, when the pelvis is ascertained to measure no more from pubis to sacrum, or in any other direction of the aperture at the brim than $2\frac{1}{2}$ inches, I am persuaded from long experience, that no mature fœtus can possibly be extracted by any known mechanical power, through a space of these dimensions, without inevitable destruction to the child, and consequent risk to the mother. It will be evident from these facts, that it is in this intermediate degree of distortion (comprising not more than a quarter of an inch) betwixt the possibility of effecting delivery, without injury to the mother or fœtus, with the *Forceps* or *Lever*, and that extent of deformity which requires the application of the *Crotchet*, that premature delivery seems most likely to be advantageously produced. In such cases this method is preferable to the sacrifice of a mature fœtus by embryulcia, whilst unavoidably endangering the life of the parent.'—pp. 302, 303.

'The solidity of the fœtal head, and the reaction of the bones of the pelvis upon that body, are so variable in different children and in different stages of labour, that no exact criterion can be formed before birth. However, I will venture to hazard an opinion that the

* 'In a case of this description I had once the curiosity to measure the head of the child soon after birth; its longest diameter was 7 1-2 inches, and the distance from the protuberance of one parietal bone to the other was reduced by pressure to nearly 2 1-2 inches. Notwithstanding the degree of compression which the brain must have sustained by long continued action of the uterus, and though delivery was effected with the *Lever*, both mother and child recovered. Cases of this kind are very rare, and form no general rule of practice.'

component parts of the mature foetal head when exposed to the risks attendant on *natural* parturition, will bear a reduction in size by pressure during its evolution through the pelvis, from $\frac{1}{4}$ to $\frac{1}{2}$ an inch without proving fatal; but when the volume of the head becomes diminished beyond this, either by the use of the *Forceps* or *Lever*, or other mechanical power, their application becomes proportionally dangerous both to the child and mother.'—pp. 304, 305.

'The next question which presents itself, is in what degree of distortion of the pelvis it becomes expedient to have recourse to this operation?'—p. 308.

'Under these incidental constructions of female deformity, I presume that a pelvis, the small diameter of which measures from pubis to sacrum, about $2\frac{1}{2}$ or $2\frac{3}{4}$ inches, appear to favour the utility of this mode of delivery more than any other given dimensions. For on the other hand it is sufficiently evident, that where the pelvis measures $2\frac{3}{4}$ inches, the *Forceps* or *Lever* may be advantageously used; but a mature foetus cannot be born alive, when the extent of space is under $2\frac{1}{2}$ inches, in which case the *Crotchet* becomes necessary; and should the superior aperture measure only $1\frac{1}{4}$ inch in the widest part of its conjugate diameter, the only resource for the safety of the mother and foetus, is the *Cæsarean Operation*; and, in this high degree of difference, premature delivery can avail nothing towards preserving the life of the foetus.'—p. 309.

'When this operation is determined on, and the dimensions of the pelvis are such as promise success, we ought to select the time for its completion with the utmost care, in order that the child may derive every possible advantage for acquiring an uninterrupted birth, for the nearer the recurrence of the operation to the period decreed by nature, the greater will be the prospect of a successful issue.'—p. 310.

'It has been proposed to excite premature labour at an earlier period of gestation, than at the end of the seventh month; and no doubt, a few exceptions may be opposed to the general advice above insisted; but if we consider the puny condition of such ephemeral beings, and the misery to which their premature birth subjects them, we shall have little reason to prefer such a state to a mere nonentity, while the community derives no benefit from such precipitate proceedings.'—p. 311.

'It may however, be proper to advert to the probable causes of a foetus born at the eighth month of gestation, being more feeble and less likely to survive its birth than one of seven months, as Hippocrates and many other Physicians maintain.

'It is granted that there are more seven months children reared than those of eight, and daily observations sufficiently prove that abortions take place more frequently about the seventh month than at any other period of gestation. To account for this fact, it may be remarked, that there is comparatively a greater yielding of the cervix uteri at this time, than at the eighth month. The functions

of the uterus manifest less resistance to the causes which oppose parturition, and its neck unfolds its contractions with greater facility. The foetal head is also somewhat less, and parturition is rendered easier.'—p. 318

'From the works of obstetrical authors, and my own observations, I am convinced, that there are as many instances of successful births at the seventh as at the eighth month.'—p. 322.

'It will scarcely be disputed after the instances recited, that a seventh month child may frequently by proper attention be reared, and attain nearly the usual strength and size, as if it had remained in utero nine months. Hence it would be highly improper to abandon premature children, for a child born wanting nails on the fingers and toes, or without hair on the head, is not to be regarded as in a state in which resuscitation is impracticable. The infant should be kept in a room constantly warmed by means of a stove, and laying it in a bed of wool, or wrapping it in fleecy hosiery; it should be fed with good milk sweetened with brown sugar; and thus the lives of many children may be preserved which would otherwise have perished for want of timely and vigorous measures. The warm bath, galvanism, and friction are also among the remedies which promise a happy result.'—p. 323.

'Authors appear to be divided in opinion respecting the danger incurred by this operation; but this will in a great measure depend on constitutional affection existing at the time, together with the extent of distortion of the pelvis; so that under a diversity of incidental circumstances combined in this operation, some of which will always remain concealed from us, we are at a loss how to advise in every case. But when the accoucheur has made himself acquainted with every possible opposing difficulty connected with the subject, it is presumed he will not err materially in making his own selection respecting the propriety of premature induction, and the most eligible time for its commencement, with the view of insuring a prosperous result to the foetus. On the other hand, the hazard should not be overlooked which results from this operation to the woman, at the period of the seventh month, as it may vary in proportion to the mischief incurred by subverting the natural uterine functions, and because long continued exertion of the powers of the constitution is often required to accomplish the expulsion of the child at this period of gestation. And if the accoucheur has not availed himself of the most favourable time for the operation, difficulty will be thereby increased, and other assistance required, which will expose both the mother and foetus to danger.'—pp. 340, 341.

The following case of premature labour is selected by the author from a number in which he has employed a similar practice.

'Ellen Pickles, resided in the village of Rishton, about three miles from Blackburn; she was a woman of low stature, and when a child was afflicted with Rickets. She had three children; two of

the first I was obliged to extract by means of the Crotchet, owing to a distortion of the pelvis; the life of the third child, which is the subject of the following narrative, was fortunately preserved by exciting premature labour. The time for this operation being selected, I visited her on the 15th of January, 1803, and requested on leaving her, after the necessary procedure, that she would dispatch a messenger for me whenever the pains of labour commenced. On the evening of the following day I was sent for; and on examination *per vaginam*, perceived the os uteri was dilated to the circumference of a crown; the pains were strong, and had been increasing in force and frequency the greatest part of the day. The head of the fœtus was moveable by the pressure of the finger against the presenting cranium, and consequently was not then become fixed in the superior aperture. In about two hours I repeated my examination, and found the os uteri had completed its full dilatation; the head of the child was advanced some way in the superior strait, where it remained stationary for the space of about two hours, though the uterine action was very considerable. I now began to fear the child would suffer unless some mechanical assistance could be afforded. Thus situated, I was induced to apply the Lever, by which in a few minutes the birth was effected with tolerable ease, and perfect safety both to mother and child.

‘The period fixed for exciting premature labour in this woman, was as near that of the latter end of the seventh or beginning of the eighth month of uterine gestation, as could possibly be ascertained.*

‘The child when born appeared lively yet immature; and is now grown up; the mother’s recovery was interrupted, in a slight degree, by a swelling of one of the lower extremities; she, however, died in a subsequent delivery, after the use of the Crotchet by another practitioner.’—pp. 343–345.

Immediately succeeding the inquiry concerning ‘premature labour’ are *three cases of Casarean operation*. These operations were performed by Mr Barlow. They are very interesting, particularly the first, which was successful, for it is assumed by Mr Barlow, that this is the only successful operation of the kind which had been performed in Great Britain. The success in this case is undisputed. There have however, been some reasonable doubts whether the true *Casarean* operation was performed in this instance. The doubts do not rest on the success, but on some facts which are reported in the case. We quote passages in which these are contained. The first is taken from the examination of the case made by Mr Barlow to ascertain the state of the pelvis, and the progress of the labour.

* ‘I am well aware of the uncertainty and difficulty of ascertaining the exact term of impregnation in the human species, from causes too obvious to mention; but the date of the event in the present case, appears more clearly established than some others, as the woman’s husband had returned from military service about the time fixed upon for the commencement of her gestation.’

‘With some difficulty I carried up my finger sufficiently high to judge concerning the degree of dilatation of the os uteri, which appeared to be considerable, as far as I could judge from feeling its anterior edge, which was thin and flabby; but no part of the child was within reach.’—p. 357.

The next is taken from the minutes of the operation.

‘The child presented with its breech,’ (to the incision,) ‘and was extracted through the artificial opening, but unfortunately was dead, yet did not shew any material signs of putrefaction. *The placenta and membranes were then extracted with the greatest ease.*’—p. 359.

The last passage we quote is in immediate connection, but has created the principal doubt as to the nature of the operation.

‘*The uterus was very thin, scarcely exceeding that of the peritoneum, and equally so through the whole extent of the incision.*’—p. 359.

From these extracts it appears, that the child was not felt by examination *per vaginam*; that the placenta and membranes were not attached to the uterus; and that the uterus itself was nothing more than a membranous bag. An inference has been drawn from these facts that the child was not contained in the uterine cavity at the time of the operation, and that hence the case does not furnish an exception to the fatality which has marked the Cæsarean section in Great Britain. Mr Barlow’s report of this case has furnished a subject for a communication in the August No. of the London Medical and Physical Journal.

In the third of Mr Barlow’s cases the uterus was also found very thin. But there can be no doubt that he cut into the uterus in this case. ‘A corresponding incision,’ says Mr Dugdale, whose relation of Mr Barlow’s operation is published; ‘was then made through the parietes of the uterus, which did not equal the edge of a shilling in thickness in any part, and to which the placenta adhered throughout; in consequence of this attachment, it was thought prudent, rather than to expose the woman to hemorrhage by detaching the placenta from the uterus, to continue the incision directly through its substance, which was soon effected, and the nates of the child exposed to view; the babe was then extracted alive,’ &c. &c.

This case, as well as the second, was fatal.

‘OBSERVATIONS ON DELIVERY, IN DIFFICULT CASES OF THE PRESENTATION OF THE SHOULDER OF THE FETUS; AND WHERE ONE OR BOTH ARMS PRESENT ALONG WITH THE HEAD.’

This is the last chapter in the volume. We have in recent numbers already devoted so many pages to the principal subject

of this chapter, that we shall not attempt an analysis of its contents. Mr Barlow speaks of the *spontaneous evolution*, and wonders that it had not been noticed before the time of Schoenheider and Denman. But notwithstanding he quotes the works of Douglas and Kelly on this subject it is evident he himself is unacquainted with the *real process*, for he tells us in a very decided case that the arm was retracted, and the breech soon supplied the place of the shoulder. We close this article with the following extracts, stating at the same time that we have rarely met with a volume of so good an external appearance, in which the errors of the press have appeared more numerous or troublesome.

‘ In all mal-positions of the fœtus, the difficulty of turning is augmented more or less in proportion to the action of the uterus, the extent of its orifice, and the time which may have elapsed subsequently to the evacuation of the waters.

‘ What chiefly renders the presentation of the shoulder perplexing, is when the liquor amnii has been long discharged, and this prominent part of the fœtus becomes wedged in the brim of the pelvis by the violent action of the uterus. In this situation the accoucheur should make himself early acquainted with the condition of the woman, and the state of the os uteri; and if the orifice of that viscus be amply dilated and the pains trifling, the position of the child may be ascertained.* He may then proceed to pass his hand cautiously along the posterior part of the uterus, and endeavour to raise the shoulder a little, while he works his fingers past it, anterior to the breast of the fœtus; and as the hand advances, the shoulder will be pushed from its situation at the entrance of the pelvis, towards one of the iliac fossa without directing much force against it. On taking a firm hold of the feet,† they are to be brought down into the vagina, by a rotatory manner of proceeding; the shoulder will retract and delivery be effected, partly by the efforts of the mother, and partly by the accoucheur, according to the urgency of the case; the success of which depends more on the prudence and dexterity of the operator, than on his strength.

‘ If on the effusion of the liquor amnii, the shoulder be propelled low in the pelvis, and become wedged in this position, any attempts to turn the fœtus will be hazardous, and the difficulty will be com-

* ‘ I wish it to be always understood, that when the os uteri will admit the introduction of the hand with freedom, it is sufficiently expanded for the operation of turning the fœtus, but no part of the circle of its entrance should be perceptible when instruments are used. And it may in this place be also proper to observe, that the right hand of the accoucheur is exclusively the most proper to be introduced when it is the right shoulder of the fœtus that presents, the woman being laid on her right side; and *vice versa*—the contents of the bladder and rectum being invariably first emptied.’

† ‘ Sometimes both feet cannot be seized at the same time, in which case delivery may be attained by the aid of one.’

mensurate with the action of the uterus, and its degree of dilatation and rigidity. During the presence of these formidable obstacles, the accoucheur should be cautious of exerting much force in attempting to introduce the hand; or what is equally dangerous, to raise the shoulder, lest a rupture of the uterus be the consequence. For it should be observed as an axiom in practice, that no attempts to turn the fœtus should be made whilst the os uteri is rigid and contracted. In these cases the precipitate and premature practice of rupturing the membranes, can scarcely be too scrupulously avoided, as this untimely event almost always exposes the woman either to a protracted labour, or other contingent and multiplied afflictions.

‘Under these adverse circumstances, every idea of turning the fœtus must for a certain time be abandoned; for if persisted in the cervix uteri may be lacerated, and its connection with the vagina torn asunder. A quantity of blood proportioned to the state of the patient may be advantageously taken from the arm, and a clyster injected up the rectum, containing about 120 minims of Tinct Opii, which by producing sleep or composure, will generally controul the action of the uterus sufficiently to allow the introduction of the hand with safety, for the purpose of turning and extracting the child. Yet notwithstanding our best directed efforts, when delivery has been protracted beyond due time, the child generally falls a victim, even though the pelvis be well formed, and every means used which the art can suggest.

‘In some rare instances, the accoucheur will be able by the touch, to perceive the presenting hand or other parts of the fœtus, through the unruptured amnion-tumour, where the os uteri is yielding, and in part dilated.

‘It may be proper in this place to remark, that I have witnessed, in several instances, a succession of changes in the position of the fœtus, during my attendance on the same labour. Such an occurrence is probably not so rare as might at first view be imagined; for the attitude of the child in utero is not absolutely fixed by nature, in the majority of cases, before the membranes are ruptured; as its presentation whether natural or preternatural is greatly influenced by the quantity of surrounding fluid in which it floats, as well as by the manner of its effusion during the primary stage of labour. Under these equivocal circumstances, and where the presentation is preternatural, it may become a question whether the operator should immediately and indiscriminately proceed to turn the fœtus, or allow the labour to go on without the interference of art. Though I am no advocate for interrupting the ordinary course of nature, yet if during the period of parturition, when attended with a changeable presentation of the fœtus, the accoucheur should discover with the finger, through the unruptured membranes, the head and hand presenting in the axis of the brim of the pelvis, the sac may be immediately lacerated, and during the discharge of the waters it will naturally descend into the superior strait, and most

probably prevent a wrong presentation by causing a recession of one or both superior extremities, which had previously accompanied the head. On the contrary, if the head be found to present along with one or both superior extremities, and to remain stationary, the uterus being completely dilated, and the membranes whole, turning may be advisable. But if all these circumstances be not combined, it is better to wait, if it can be done with propriety, for a more favourable conversion of the fœtus; and thus, by a strict observance of these measures, a labour may sometimes be terminated naturally, which otherwise would have proved preternatural. Such occurrences are, however, rarely noticed by accoucheurs, and hence a very limited conception can be formed of their nature and results, unless acquired by much practical attention.

‘The presence of an arm in the vagina, when the shoulder occupies the superior aperture of the pelvis, with the os uteri only partially dilated and the uterine action irresistible, is an obstacle sufficient to oppose the propriety of the introduction of the hand for the purpose of reversing the fœtus, and extracting it by the feet, and this should not be attempted till the uterus has been appeased by bleeding and opiates. In such circumstances, an attempt to reduce the arm when thus protruding, or to extract the fœtus by violence, is neither necessary nor altogether practicable, even if the orificium uteri were relaxed and dilated to its full extent.

‘The passing of the operator’s hand cautiously along the side of the arm and breast of the fœtus in search for the feet, is almost always practicable when the violent action of the uterus has been checked by appropriate means. In this species of mal-presentation, and under the circumstances abovementioned, the arm of the fœtus, however swollen or situated, cannot wholly resist the operator’s efforts if judiciously exerted, for the trifling bulk of the accheur’s hand, when combined with the arm of the child, can never exceed that of the body or head of a mature infant, consequently can present no powerful obstruction to the process of turning and delivering by the feet, when skilfully conducted.

‘On some occasions, though the shoulder of the fœtus originally presented alone, yet when the orificium uteri is become dilated and a rupture of the membranes takes place, the arm will, by the efforts of the uterus, be forced into the vagina, and the hand be protruded at the os externum. or be bent in the passage, so that the elbow will supply its place externally. In this posture of the fœtus some authors have suggested that delivery might be effected by pulling at the arm; others have directed to return it into the uterus and extract the fœtus by the feet; whilst a third has amputated the arm at the shoulder joint, or twisted it off. Another project, not less cruel and absurd than the above, has been recommended, when only one hand presented to search for the other, and attempt delivery by pulling at both extremities at the same time: but this impediment seldom or ever calls for such inhuman interference, and the records

of obstetric practice furnish us with too many examples of such wanton barbarity and ignorance.'—pp. 391-396.

'If the accoucheur has the whole management of a case from the precise time of the discharge of the liquor amnii, and the hand and head of the foetus are found by a common examination to present together, the pelvis being well formed and the uterus dilated, the recession of the hand may be frequently accomplished by raising it up during the absence of uterine action, and supporting it at the brim of the pelvis on the extremity of the fore and middle fingers, conducting it posteriorly towards the face of the foetus, and restraining it in this position till the pains push the head forwards, and the hand recedes out of the way. If this attempt prove ineffectual, the accoucheur may then introduce a piece of sponge, or other soft substance along the side of the pelvis during the interval of a pain, and wedge or support the presenting hand, or hands above the superior strait till the head has cleared the inlet of the pelvis. It may be alleged, that the introduction and retention of such substance into the cavity of the pelvis during labour, may obstruct the exit of the child or otherwise do mischief; but this objection can have little weight, for the substance introduced will either be transmitted along with the head, or otherwise be retained above the brim of the pelvis, and in either case will prove no obstacle to delivery. It will be evident that I here allude only to those cases where one or both hands present, and not where the fore-arm or arms are primarily advanced to the os externum, and the head engaged in the cavity of the pelvis.

'I have in several cases completely succeeded, by replacing the hand as above directed, and likewise in instances of the descent of the funis umbilicalis, by pushing it up out of the way of compression, and introducing a portion of cotton wool, or soft sponge, in such a manner as to wholly plug up the passage on that side of the head where the funis protruded.'—pp. 412-414.

'When one arm only presents, and the head advances in a proper direction, there appears no necessity of either attempting to reduce that extremity or reversing the foetus, for this appendage presents only a trivial encroachment on the dimensions of a well-formed pelvis; and if its diameters are not much below the natural standard and the head ceases to advance though the pains are strong, the *Lever* may be requisite, and should be applied to the opposite side on which the arm rests.

'But when both superior extremities advance in progression with the head, and occupy the upper entrance of the pelvis, the case wears a more formidable aspect, and this in proportion to the capacity of the pelvis and action of the uterus, and rigidity of its cervix. Nevertheless if these eventual circumstances, when taken collectively, have an auspicious appearance, we are justified in resigning the event of the case to *Nature*, as her efforts will be generally efficient, without having recourse to manual assistance.

‘As a proof of what I am advancing, I have attended three cases of this description, when both arms presented with the head of the fœtus, and the delivery was terminated without injury either to mother or child, in each instance, by the efforts of nature alone.

‘Another case of the same kind I was witness to, where the practitioner with great difficulty finished the delivery by turning; the child was dead, and the mother had a very narrow escape in consequence. It is, I am persuaded from long experience, best to have recourse to turning as seldom as possible, for it is only an uncertain expedient on the score of the child, even under the most favourable circumstances.’—pp. 415, 416. M.

ARTICLE IV.

Medico-Chirurgical Transactions. Vol. 12th, Part 1st.

WE have received another volume of this interesting and useful work, a general analysis of which we propose to lay before our readers.

The first paper contains *four cases of children who had attempted, by mistake, to drink boiling water from the spout of a teakettle; with observations on the seat and treatment of the effects of this accident.* By MARSHALL HALL, M.D.

These cases are both novel and instructive, and may serve as a caution to mothers against suffering their children to drink hot liquids, since the practice, as is shown in this communication, may not only lead to dangerous, but even fatal consequences.

In the cases related, the children attempted to drink through the spout of a teakettle immediately after it had been taken boiling from the fire, supposing it to contain cold water. The effects of this accident as stated, are not, as would be supposed, a priori, symptoms of inflammation of the stomach and the passage leading to it, but are such as occur in croup; and are owing to an inflammation being produced in the glottis and larynx; and as Dr Hall remarks, the case constitutes another instance, in which the operation of laryngotomy may prevent impending suffocation, and perhaps save life.

It is thought that in these cases the boiling water does not penetrate into the stomach or even gullet, but is arrested in its course by a spasmodic action of the muscles of the pharynx. It scalds however the epiglottis and glottis, which continue to swell until the rima glottidis is entirely obstructed.

‘Of the four patients whose cases are about to be given, one recovered from imminent suffocation immediately after violent screaming; two died from suffocation, one 10, the other 17 hours after the accident; the fourth was completely relieved by the operation of tracheotomy, survived 34 hours, but died exhausted by the irritation produced by the primary affection.’

The case in which bronchotomy was performed was that of a little girl two years and a half old. Dr Hall saw her five hours after the accident, and found her affected with difficulty of breathing, attended with the peculiar sound of croup. Deglutition could be performed without difficulty. The tongue and internal parts of the mouth were blistered, and the pulse were frequent. As the dyspnœa continued to increase, and suffocation seemed impending, tracheotomy was performed, twelve hours after the accident. The operation gave immediate relief, the child sat up, played and was cheerful, and the respiration seemed perfectly free through the opening into the wind-pipe.

‘At 10 o’clock, A. M.’ six hours after the operation. ‘the difficulty in breathing had much returned. The face was pale, and the child appeared to be dying. In the afternoon, however, it was better, the difficulty of breathing being again much relieved. It swallowed imperfectly, a little passing, at each attempt, into the trachea, and being returned through the orifice by coughing. The patient seemed once more to be in a promising state.

‘The next day at ten o’clock, A. M. the little girl was worse, and apparently sinking. The respiration was not however, difficult; but the pulse was almost imperceptible, and the extremities cool. She died at half past two o’clock, P. M. thirty-four hours after the operation, apparently from the exhausting influence of the original disease.

‘On dissection there was observed a swollen, blistered, and corrugated state of the epiglottis; and a similar state of the posterior fauces, tongue, and internal mouth. There was a little mucus in the larynx, but no perceptible morbid condition of the œsophagus or stomach. There was no inflammation of the trachea, not even near the orifice made by the operation.’

‘The important question now is,’ says Dr Hall in conclusion, ‘what should be the plan of treatment in any future case? If the suffocation were imminent, I should not hesitate to propose the operation of laryngotomy or tracheotomy, and the former would appear to reach below the seat of this affection. But I now regret that I did not propose the scarification of the epiglottis and glottis, so as to evacuate the blisters. I have also conjectured that it might be possible to enlarge the orifice into the larynx; either by removing a portion of its edges, by means of a cutting instrument of a proper form, or by introducing a tube; the latter expedient appears to be particularly adapted to a case

which *time* would cure, and which would not probably be materially aggravated by a cause of irritation.'

In an appendix to this paper, by Edward Stanley, Esq. two more cases of this affection are related, which like the others, assumed very much the appearance of croup. Both these patients died. In one, on inspection after death, the interior of the mouth, the fauces, pharynx, and the œsophagus, to within a short distance of the cardiac orifice of the stomach, exhibited the common appearances of a scald.

The second paper in this volume is, a case of *Aneurism in which a ligature was placed upon the subclavian artery*. By CHARLES MAYO, Esq.

The operation in this case was happily accomplished, and at first the symptoms seemed to indicate a successful result. But the pulsation in the tumour soon returned, together with severe pains and irritations in the shoulder and arm. Hemorrhages, too, came as from the sac, and symptoms of some internal inflammatory affection. He died on the eleventh day after the operation. Mr Mayo, from the history of the case, concludes that the unfavourable issue was more decidedly owing to the general irritation of the system induced by the operation, and likewise by the implication of the aneurism with the axillary nerves, and its extension into the chest, which dissection showed, than to the quantity of blood lost in the several hemorrhages.

A case of Bronchotomy successfully performed for the removal of a pebble from the trachea. By WILLIAM HUNT, M.D.

This case, in addition to many others which have of late been recorded, serves to show the safety, and of course the necessity, of the immediate performance of this operation in cases where foreign substances have been introduced into the trachea. This in fact is the only effectual mode of relieving the patient, and it should be resorted to as promptly as possible, for there is constant danger of inflammation following the accident, the course of which we may be unable at any rate to arrest.

Account of a singular variety of urine; which turned black, soon after being discharged; with some particulars respecting its chemical properties. By ALEXANDER MARCET, M.D.

This urine was passed by a healthy male child seventeen months old. The following particulars were obtained from the father of the child.

Almost immediately after the boy's birth, it was observed that the urine tinged his napkins of a dark purple hue. He enjoyed good health although this peculiarity of the urine never abated for any length of time. At the age of about nine months it was found that his urine, though perfectly clear when first discharged, yet on standing assumed the dark colour above described. This colour, however, varied in degree, and at times wholly disappeared. It was observed to be most strongly marked when the child's bowels were constipated.

'When I saw him, he was seventeen months old, and was active, robust, and lively, though as subject as ever to the peculiarity in question. It is to be regretted, that after this period we lost sight of him entirely. I have lately made several enquiries after him, but to no purpose.'

Dr Marcet collected three specimens of the child's urine, which were passed at different times in the same twenty-four hours. We shall merely give his examination of the first specimen, as the peculiar character under consideration was in this most strongly marked.

'On the following day, the specimen No. 1. now two days old, continued quite black; it had an ammoniacal smell, and was sensibly alkaline. After an interval of six weeks, it remained precisely in the same state; and after a lapse of seven years, I now find it perfectly unaltered, having preserved its colour, having deposited no sediment, and possessing the same ammoniacal pungency, without any distinct urinous smell.'

The specific gravity of this specimen was 1022·2; it effervesced on the addition of the mineral acids, became slightly turbid, but did not change its colour. On adding alum in solution to it, the tinge became lowered, and a precipitate was produced. By the aid of the microscope, no red globules could be discovered in it.

'It yielded by evaporation a black deliquescent residue. During the first part of the process, an uncommon quantity of ammonia was evolved; but, as the evaporation advanced, the urinous smell was perceived. No iron could be detected in the residue. Dilute nitric acid being poured upon it, and evaporated to dryness, no pink stain was produced; showing that the urine contained no sensible quantity of lithic acid. Alcohol seemed to have very little, if any, effect on the colouring matter; for after being poured on the dry residue and decanted off, it was not sensibly coloured by it, though it was rendered slightly turbid.'

Dr Marcet observes that he is not acquainted with any account of this condition of the urine occurring in a state of health, but he saw an instance of black urine in a young female who

laboured under a very singular and anomalous disorder. She was subject to daily paroxysms which partook both of a febrile and hysterical character, at which times her urine became black. There was an intermittent affection, too, of the integuments, which usually began with a tingling of the parts, followed by swelling or puffiness over a surface of several inches; this lasted for several hours and a black or purple colour succeeded which often continued for some days after the other appearances had subsided. The toes, hips, legs and face were in succession liable to these attacks. This disease lasted between two and three months. The peruvian bark, and nitrate of silver were the remedies employed.

Dr Prout, who examined the chemical properties of the urine which forms the subject of this paper, concludes that it owes its black colour to a compound of a peculiar principle with ammonia; and is inclined to believe that the black principle, which was obtained from the urine by the action of the acids, may be considered as a new substance possessing acid properties, which he proposes, should farther observations confirm his views of the subject, to distinguish by the name of *Melanlic acid*!

Case of the extraction of a living fœtus, from a women killed by violence. By J. H. GREEN, Esq.

The woman from whom this child was extracted, was killed by a heavily laden stage coach passing over her body, she lived only twenty minutes after the occurrence of the accident. The Cæsarean section was performed in thirteen minutes after the woman had expired, and the child extracted through the opening, though without any signs of life. In the space of about fifteen minutes however, during which time artificial respiration had been carried on, the vital power was brought into action and the child breathed. The respiration soon became regular and natural, and the pulse were felt at the wrist. This child lived thirty four hours after its extraction from the uterus, its death was supposed to be occasioned rather from the want of proper care, than any deficiency of vital energy for the continuance of the functions of life. It is worthy of remark that the warm bath, and the internal use of brandy, both of which were employed in the process of the recovery of the child, produced a depressing effect.

This case certainly affords a proof that a child, if immediately extracted from the uterus, when the life of the mother has been destroyed by violence, may be preserved. The case re-

lated was very unfavourable for the experiment, the woman dying under profuse hemorrhage.

Account of a man who lived ten years, after having swallowed a number of sharp knives; with a description of the appearances of the body after death. By ALEXANDER MARCET, M.D.

It appears that this man had at different times during the period of ten years been in the habit of swallowing knives to amuse his acquaintance, at first with but little inconvenience, but at last the action of the stomach became so weakened, that these bodies could not be transmitted to the intestines.

The body of this man was examined after death, and presented many interesting appearances. From a comparison of the appearances on dissection with the previous history of the case, Dr M. is led to the following remarks. 'It would appear, that so long as the stomach was not injured in its action and texture, the passage of the knives was, in most instances, attended with no or very little inconvenience. But from the frequent repetition of these experiments, together with the man's habits of intemperance, the stomach at last lost the power of transmitting to the intestines those bulky and unyielding bodies. They therefore now remained in that organ, where they produced the distressing symptoms of indigestion and pain which have been described; and the circumstance of the knives not wounding the intestines till the latter period, was probably owing to a similar cause, namely, that when the stomach was able to expel them quickly, they passed through the intestines, inclosed with their handles, and therefore comparatively harmless; while at a later period, the knives were detained in the stomach till the handles, which were mostly of horn, had been dissolved, or at least too much reduced to afford any protection against the metallic part.' At the end of this volume there is a plate representing the fragments of knives which on dissection were discovered in the stomach of this man.

History of a case of Premature Puberty. By JOHN FLINT SOUTH, Esq.

There is a similar case to the present recorded in the first vol. of the work we are noticing, such cases, however, are very rare, and in a physiological point of view, not a little interesting.

The subject of this case was born September 6th, 1818. The following account was obtained from the mother of the child. At the time of his birth, he was very large, and com-

pletely covered with hair, and the back of his head, particularly with black hair. The pudenda were so large that he was thought to be ruptured. The hoarse noise he made in crying, and his deep breathing when asleep, were frequently noticed. At the age of about four months, the hair on the pubes began to grow very quickly and black, and the penis, especially the glans, to increase in size, so that when he was fifteen months old, the glans was entirely exposed, and the pubes completely covered with black curling hair. Within two years of his birth he had cut all his teeth. It is something remarkable that he cut the four incisors, and the two cuspidati of the upper jaw, before a single one in the lower. He could walk well before he was a year old, but his size increased so fast that at fifteen months his legs could not support the superincumbent weight. At about this time his mother weaned him.

‘Soon after this, she noticed that his linen was stained two or three times in the week, when she had to dress him in the morning, and was then unconscious of the cause from whence it proceeded; but from his crying out whenever it occurred, as if hurt, and the circumstance of his being faint and pallid on the next morning, she was induced to watch him, and then ascertained the real cause, which, alarming her very much, she applied to her medical attendant, who recommended cold bathing of the whole body, three times a day, which she followed up till a few weeks before she came to town.’

The child now grew better and his emissions less frequent, but it was observed that if he took more than his usual quantity of porter or beer, he generally had an emission the night following. His voice as he grew older became more gruff. He is stated to be very passionate; and ‘does not fail to be master when he plays with other children, and uses his fist with good effect, to obtain from them any object which may particularly strike his fancy.’

Mr South does not mention the age of this child at the time he saw him; according to the date of his paper however, he could have been but little past three. The following is Mr South’s account of him.

‘When I first entered the room where he was, I was much struck with the size and form of his head and neck. He has a fine, high and spacious forehead; but the occiput is extremely prominent, from the enormous size of the cerebellum, which Drs Gall and Spurzheim state is always the case when the genital organs are developed in a great degree. His countenance is that of a child of six or eight years old, puerile, but intelligent, with an archness of expression, and a pleasing smile, when he is in a

good humour. He has coarse light hair and eyebrows, with light hazel eyes, but expressive. There is no beard on the chin; but the upper lip is darkened with hair, such as is generally noticed in young persons of fifteen or sixteen, accompanied also with inspissation of the sebaceous matter about the alæ of the nose, usually observed at the same period. The neck is short and thick, but not inelegant, the anterior edge of the trapezius muscle forming a gentle curve from its origin to its insertion in the scapula and clavicle. The sterno-mastoid muscles are large, but not very prominent.

‘When his clothes are stripped off, the trunk presents the appearance of that of an adult, except that he is not so large across the shoulders as he is round the pelvis, the clavicles being, comparatively with the rest of his body, short. He has a large and ample chest, on which the pectorales are prominent. The nipples are small and dark. The abdomen is large and prominent; but neither is this or the chest covered with much hair. The penis, scrotum, and testicles are as large as those of an adult: the prepuce being always drawn back, or perhaps, it may be said, not existing at all; the glans penis is constantly uncovered. The pubes and scrotum are covered with thick dark curling hair. The thighs are larger and muscular, but out of proportion, not being longer than the tibia, and fibula, which bones are bowed forward; but, in addition to this, they also bow outwards, more particularly the left, their lower epiphyses having given way under the great weight they have to support; the feet are large and broad, but the arches of the tarsal bones are much impaired from the same cause. The arms are muscular, and the origins and insertions of the muscles admirably marked. The hands are large, and covered in the palm with rough hard skin.

‘But it is the posterior view of the trunk which presents, next to the parts of generation, the most remarkable appearance. The lumbar mass of muscles is enormous, and the trapezius, with the latissimus dorsi, are not a whit behind them; the muscles of the scapulæ are also very large and prominent. The spine is very erect; and from the nape of the neck to the pelvis, he is completely covered with hair, like a strong muscular man: in short, the back gives the idea of very great strength, which he possesses, as he can lift a half hundred weight with one hand, with great ease, and will drag an adult about on his rocking horse, without much exertion.’

As it regards his disposition, Mr South’s statements agrees with that of the mother. He is inquisitive and his memory tenacious. But though his body is so completely evolved, still his faculties are only those of a child—his amusements, too, are those common to childhood.

‘He does not seem at all aware of his situation; and, from what I can ascertain from his mother, he has not the least incli-

nation to play any tricks with himself. But it is remarkable, that whenever he has an emission in the night (now about once a week,) and he is always waked by it, he calls out, 'leave me alone; do not pull me about;' and will not go to sleep till his father goes to sit by him, when he immediately drops off.' His weight is 64 pounds avoirdupois.

On the products of Acute Inflammation. By THOMAS DOWLER, Esq.

Mr D. first remarks upon the ambiguity which has existed respecting the nature of these products, from the different appellations which, from time to time, have been given to them. He then goes on to show that it is fibrin, in conjunction with serum, which is deposited during the progress of the adhesive inflammation.

'When adhesive inflammation is taking place, the fibrin of the blood, together with serum, seem to be secreted from the vessels: they are both thrown out in the fluid state; but the former has the property of becoming solid soon after it is removed from the influence of those vessels; and in so doing it encloses between its fibres serum, with which it had been secreted. This change begins to take place very soon after its escape from the circulating system, and does not appear to cease, till a considerable time after it has been removed from the body.'

On a blistered surface where there is much inflammation produced, it is asserted that fibrin is poured out at the same time with the serum.

Mr D. infers from his experiments that the inflammatory crust of blood, does not, as was thought by Dr Thomson, consist entirely of coagulable lymph, but that it is composed of a tissue of fibrin, having between its fibres a large proportion of fluid serum.

In the conclusion of this paper, it is *attempted* to be shown that different fluids being effused at different stages of inflammation is owing to a change in the diameter of the vessels which pour out these fluids. As thus, in the commencement of inflammation the diameters of the extreme vessels are small and therefore admit only serum to pass them; but the inflammatory action increasing, they became enlarged and admit of the passage of fibrin, of pus and lastly of the red globules. The different inflammatory effusions then are explained by this gentleman, purely on mechanical principles; these fluids are forced through strainers, and they are thick or thin, in proportion as these strainers are coarse or fine.

A case of Inguinal Aneurism successfully treated, by tying the external iliac artery. By EDWARD SALMAN, Esq.

Observations on the use of the Cubebs, or Java Pepper, as a remedy for Gonorrhœa. By S. D. BROUGHTON, Esq.

On Partial Paralysis. By JOHN SHAW, Esq.

Mr S. assisted Mr Bell in his researches into the comparative anatomy of the nervous system, and in the performance of the different experiments made in support of his opinions; for which reason he was induced naturally to take much interest in the investigation.

The result of Mr Bell's investigations and experiments, led him to the conclusion, that the 'nerves of all creatures may be divided into two parts or systems; the one simple and uniform, the other irregular and complex, in proportion to the complexity of the organization.' He terms the first, symmetrical or original, and the other the suppleradded or irregular nerves. He concludes, moreover, that, 'no organ which possesses only one property or endowment, has more than one nerve, however exquisite the sense or action may be; but if two nerves coming from different sources are directed to one part, this is the sign of a double function performed by it; and if a part or organ have many distinct nerves, we may be certain, that instead of having a mere accumulation of nervous power, it possesses distinct powers, or enters into different combinations, in proportion to the number of its nerves.'

'The results of experiments,' says Mr Shaw, 'upon the two systems of nerves being very different, it appeared to me probable that, by an examination into the phenomena consequent upon paralysis, it would be found that the symptoms accorded with the system of nerves, affected. To this enquiry I have, of late, particularly directed my attention.

'The facts which I have already observed, though not yet so numerous as to permit us to come to any absolute conclusions, are still sufficient to shew, *that when one system of nerves is affected, the symptoms are different from those following a disease of the other, and that the two systems are seldom affected at the same time.*

Mr S. attempts to show then, that there are two kinds of paralysis, which seldom or never depend upon the same cause, and which require very different modes of treatment.

'When we recollect the numerous nerves which supply the head and neck, and many of which differ in function from each other, we cannot be surprised that some of them should be affected, while the functions of the others continue unimpaired. Indeed

the most common cases of partial paralysis which have been recorded by writers on palsy, are of certain actions of the muscles of the neck and throat. But, at present, I shall confine my observations principally to those cases, where the respiratory functions, and the powers of expression in the muscles of the face, were affected.

‘The first series of cases will prove that the most common instance of partial paralysis of the face is seldom caused by an affection of the brain, as has been hitherto supposed, but that it generally depends on some injury or disease of the superadded nerve, commonly called portio dura, of the seventh pair, and to which we have given the name of respiratory nerve of the face.’

Here follows a series of cases to shew the symptoms and effects of partial paralysis of the face, in consequence of inflammation of the portio dura.

Mr Shaw also relates cases of partial paralysis, connected with a diseased state of the brain. He speaks too, of partial paralysis in consequence of exposure to cold; and gives an example of paralysis being confined to a part of the side of the face, in consequence of only certain branches of the portio dura being affected. He then suggests a plan of treatment in cases of partial paralysis of the face.

We have next, examples of paralysis of the face in consequence of operations upon it, and in consequence of injuries of the head.

In the second part of this paper, Mr S. goes into an inquiry into the state of the superadded nerves in cases of palsy following apoplexy. The whole of this paper is interesting and instructive, but our limits do not admit of farther extracts from it.

An account of some circumstances, in which a uterine hemorrhage may occur, sufficient to produce alarming symptoms, though the uterus feels contracted in the ordinary degree. By ROBERT GOOCH, M.D.

‘Hemorrhage from the uterus, after delivery, is attributed to insufficient contraction of that organ. We infer security from hemorrhage, if the uterus be contracted; and that the uterus is contracted, if it feel small, round, and firm. This I believe to be, generally, the truth; yet the observing practitioner must have been frequently struck by the little proportion that existed between the want of contraction and the degree of hemorrhage; having found the uterus bulky without any hemorrhage, and a profuse hemorrhage without greater bulk of uterus. Nay, further, I have witnessed a profuse hemorrhage, though the uterus had contracted in the degree which commonly indicates security;

and I have ventured to do what is seldom justifiable, separate the placenta before the uterus had contracted, without more hemorrhage than after a common labour. What is this circumstance, which has so great an influence, that its presence can cause a moderately contracted uterus to bleed profusely, and its absence can cause an uncontracted uterus to bleed scarcely at all?

‘Experience has taught me that there are two circumstances in which a hemorrhage sufficient to produce alarming symptoms may occur, though the uterus feels contracted in the ordinary degree.’

First. The effects produced on the system, by the loss of blood, depend in a great degree on the constitution of the patient, as well as on the quantity lost, and the rapidity with which it flows. There are some persons who are particularly liable to syncope, and if such lose rather more blood than usual on the separation of the placenta, they will be as much affected by it, as others would be by a profuse hemorrhage, though in such a case nothing unusual would be observed in the size of the uterus. Here then there might be a hemorrhage sufficient to produce alarming symptoms, though at the same time the uterus appears to have undergone its ordinary degree of contraction. Dr Gooch here relates an interesting case to illustrate his meaning.

Second. After delivery, the contraction of the uterus commonly prevents hemorrhage, by closing the blood vessels sufficiently to resist the ordinary force of the circulation. Now it is supposed that if the force of the circulation was much greater than usual, it might overcome the *ordinary* closure of the orifices, and thus, although the uterus was contracted, might give rise to a profuse hemorrhage. Here follows a case illustrating the truth of this supposition.

To check hemorrhage occurring after the removal of the placenta, Dr Gooch recommends to introduce the left hand closed within the uterus, and to apply the right hand open to the outside of the abdomen, and thus compress between the two the part where the placenta was attached.

Observations on Compound Fractures. By JOHN DUNN, Esq.

Mr Dunn in this paper relates three interesting cases of fractures, two of which were compound fractures of the tibia, the limbs were preserved in both these cases by the removal of large portions from the middle of this bone. The third was a case of simple fracture after the union of which a projecting edge of the fractured bone (the tibia) was amputated with success.

Case of Umbilical Hemorrhage, which terminated fatally.
By G. POUT, Esq.

Case of Vaccine Disease and measles existing at the same time in the same individual. By S. GILDER, Esq.

Cases of un-united fracture of the humerus, treated by seton and the application of caustic potash. By HENRY EARLE, Esq.

We have two cases in this paper in which caustic potash was applied to the un-united ends of a fractured humerus without producing bony union. Mr Earle, however, does not attribute the failure in these cases to the operation, nor does he think that the want of success in these instances at all militates against the propriety of adopting the operation in other cases.

‘In both these instances there were sufficient circumstances connected with the state of the patients’ constitution, to account for the want of success: in the former case the seton was tried and it had failed, and temporary benefit was obtained from the second operation. In neither case did the operation at all affect the general health; nor was it so severe as the patients expected; and certainly it was less so than the employment of the seton.’

Case of a large nævus maternus on the head, cured by tying the carotid artery. Communicated by J. WARDROP, Esq.

The following case, showing how tumours of this description which cannot with safety be extirpated, ought to be treated, is from Dr Arenat, of St. Petersburg.

‘A man who had from his birth, several nævi on different parts of his body, received a blow on one of them situated on the right temple. It increased rapidly in size, acquiring a prodigious bulk in the space of two hours after the injury. The carotid artery was tied an inch and a half above the clavicle, and two ligatures were placed round it, half an inch distant from each other. The tumour burst during the operation, and the loss of blood was calculated at not less than eight pounds.

‘On the day following, the tumour was found entirely emptied of blood. A great portion of the skin was now cut away, and about twelve small arteries secured. The ligatures on the carotid artery were removed on the seventeenth day, and the wounds healed rapidly afterwards.’

Case of a wounded nerve of the thumb, followed by severe symptoms, which were relieved by a division of the nerve. By J. WARDROP, Esq.

On the varieties of diseases comprehended under the name of carcinoma mammae. By CHARLES BELL, Esq.

‘Many hopeless cases of local disease,’ says Mr Bell, ‘under the name of cancer, are sent into our wards; some of these are tractable, and can be cured, some of them are incurable by our present means. We ought never to lose the hope of finding a remedy for these; but we have other objects not less important, and within our power of accomplishing. To alleviate pain, to prolong life, to make the disease bearable to the patient, and less a source of horror to friends, is within our power. To distinguish diseases of a different nature, to know when to extirpate with the knife, when to avoid the performance of severe but useless operations, are objects sufficiently important. How often is a simple tumour, mistaken for a cancer; how often is a disease of mere irritation from neighbouring or remote sympathy, or even from motion of the part, mistaken for a formidable cancer! There are cases where we have it in our power to relieve the patient from an agony of mind worse than bodily suffering, and by distinguishing diseases to preserve them from being the dupes of quacks who ruin them. By much the larger portion of patients received into the cancer ward of the Middlesex Hospital, have spent their last penny and what is worse, they have lost that precious time in which they might have been cured, in attendance on a set of the most unfeeling wretches that ever disgraced a country. Indeed, the subject would be sufficiently important if we had no other object than to make those distinctions in the diseases called cancers, and to note those occasional variations in their progress, which afford to that class of persons the means of deceiving.’

In this paper, Mr Bell first gives a history of true carcinoma mammae, then of impostumated cancer. Next he speaks of the character of the ulcer, the general condition of the patient, of carcinoma mammae hydatides of acute carcinomatous tumour of the mammae, of cancer commencing in the areola, of the acute fungous tumour of the mammae, and concludes the paper with a description of the internal structure of the carcinoma mammae.

Account of a stone and of a portion of catheter extracted from the female bladder by a dilator. With an appendix by Mr CHAPMAN of Wandsworth, and by Mr BIRT, of Diss, Norfolk. *On the removal of a catheter and of a stone from the female bladder by dilatation.* By SIR ASTLEY COOPER, BART.

Sir A. Cooper instead of using a sponge tent for dilating the urethra, employed an instrument, constructed upon the principle of the speculum ani and speculum oris, to enlarge this passage, which has the advantage of permitting the escape of the

urine, whilst it is dilating the urethra. Sir A. relates two cases in which he employed this instrument with much satisfaction. In the first case the dilator remained eight hours in the urethra, when the forceps were readily introduced and a calculus extracted. In the second case the instrument was retained in the urinary passage for two minutes only, when it was sufficiently dilated to introduce the forceps.

This mode of operating possesses many advantages over that of the knife or gorget. It is done with greater facility, less danger to the patient, and in a much shorter time, but its greatest advantage is thought to consist in the preservation of the powers of retention of urine.

The last paper in this work contains the history of a case of a large glandular tumour in the neck, removed by J. P. VINCENT, Esq.

This tumour occupied the whole right side of the neck, 'extending from the ear to the clavicle, and laterally from the edge of the trapezius to the trachea, projecting in a proportionate degree beyond the natural contour of the neck. The subject of this case was but 6 years old. The whole of the tumour was removed, and in about five weeks from the operation he had so far recovered that he was dismissed from the hospital. He was, however, soon after attacked with measles which brought on such an affection of the lungs as to destroy him.

Analysis of Foreign Medical Journals,

WITH SELECTIONS.

282. LONDON MEDICAL AND PHYSICAL JOURNAL, AUG. 1822.

Art. I. *Description of an instrument for the extirpation of the mouth and neck of the uterus, in cases of Carcinomatous or other Excrescences.* By DR CANELLA, of Riva di Trento.

A CASE is detailed in this paper, in which a tumour of a carcinomatous nature was removed from the uterus, by M. Dupuytren, and in which the operation was successful. The operation was simple. It consisted in the first place in placing the patient across a bed, in separating and supporting the lower limbs, in pressing up on the hypogastric region from above downwards.

‘The mouth of the uterus was seized, and drawn to the vulva, by a pair of forceps; and the tumour, which consisted of a soft cerebriform mass, was removed by the curved scissors.’ The place of incision appeared sound, though rather firmer than the neck of the uterus usually occurs. The bleeding was slight, and checked by an injection of vinegar and water. The tumour occupied the anterior lip of the os uteri. The operation was done December 15th, 1816. The patient was convalescent on the tenth day. In April 1817, a small tumour was detected on the posterior lip. It was removed after a similar manner, and in 12 days the patient was well. In May 1818 new vegetations were discovered, and M. Recamier the attending surgeon, made an instrument which he calls *speculum uteri*, by means of which he might see the diseased part, and apply a caustic for its destruction.

‘This contrivance, which he denominates *speculum uteri*, is a simple metallic tube, and admirably fulfils the intention of its inventor. Its calibre should vary according to the size of the vagina. One extremity, which may be called uterine, is cut perpendicularly, and rounded at the margin to be applied to the neck of the uterus. The other extremity is sloped obliquely from above downwards.

‘At the end of May, Mr R. made his first application of caustic. The affected parts, having been brought into view by the tube, were touched by a camel’s-hair pencil, dipped in a solution of nitrate of mercury; and the cauterized parts were covered with pledgits of lint, before it was withdrawn, to prevent the spreading of the caustic to the vagina. The pain produced by the application was moderate, and on the following day the patient felt no inconvenience from it. To promote the separation of the eschar, the mel. rosat. was applied in the same manner by the pencil. At the end of eight days, the sloughs separated, and the caustic was again had recourse to, which produced acute pain for the space of three hours. After fifteen cauterizations, thus repeated at intervals of about eight or ten days, the excrescences on the posterior surface of the lip were destroyed; but another yet remained, projecting nearly an inch from the anterior. The operator having now observed that, in consequence of this projection, a cul de sac was formed at the posterior part of the vagina, the rugæ of which were perceived, and were likely to be injected by the spreading of the caustic, the uterine extremity of the instrument was sloped off, by which it could be carried farther backward. Twelve cauterizations were required to destroy this. The neck of the uterus was entirely removed, and the caustic carried even

to the body of the uterus. At the fourth month after this treatment was commenced, no further reproduction of the tumor had taken place, and hopes were entertained of a perfect cure; but the patient soon experienced a relapse. Lancing pains were felt in the region of the uterus, which became intolerable, notwithstanding the strongest doses of opium, and she died in January 1820.

‘Since the first employment of the instrument, Mr Recamier has gone still further with it, having applied caustic, by its means, to a patient affected with three carcinomatous tumors in the rectum; the largest of which was ulcerated, and of the size of a nut. It has undergone some modifications in the hands of Mr Dupuytren, who has furnished it with handles, by which an assistant can retain it within the vagina, while the surgeon applies his remedies. Mr Dubois has also varied it, by removing, through its whole length, that portion of the cylinder which corresponds to the upper part of the vagina, so as to enable him to detect and to treat urinary fistulæ.’

Dr Canella’s instrument is a modification of M. Recamier’s speculum, with mechanism superadded, by means of which the part to be removed may be drawn down, and kept tense, and also cut off at once by a concealed knife, in place of being submitted to the action of caustics. The reader would hardly understand this somewhat complicated mechanism without the plate, and its description is therefore omitted.

Art. II. *Case of Habitual cough, cured by a severe burn.* By THOMAS OGDEN, Surgeon.

A boy 6 years of age had from earliest infancy, cough accompanied by profuse expectoration, and noisy respiration. At two-years he had epilepsy, with much derangement of the stomach and bowels. His clothes caught fire, when he was six, and the integuments of the thorax and abdomen were extensively and severely burned. The breathing, &c. continued as usual, till suppuration was fully established, when suddenly all the symptoms above named disappeared, and he has remained perfectly well in all these respects since.

Art. III. MR BACOT’S *remarks on the use of mercury in sloughing and phagedenic chancres.*

This paper consists partly of remarks on a case in a number of the Lond. Med. Repository. The remainder is occupied with remarks on the impropriety of using mercury in what Mr Bacot calls ‘inflammatory chancre.’

Art. IV. *Memoir on Partial Tenanus.* By BARON LARREY.

Two cases of Partial Tetanus are related in this article. They are preceded by brief remarks on the *neuralgiæ*, which 'consist in inflammation, either in the nerves of the encephalon or of the spinal marrow.' The second of the cases follows.

'The subject of the second case was a cuirassier of the second regiment of the Guard, a man of dark countenance, an athletic constitution, who, on the 21st of January, 1821, received, on the whole line of the superior orbitary margin of the right eye, a kick from his horse. The blow was so violent, that the external table of the frontal sinus was broken in pieces, and the man was thrown backwards in a state of insensibility, remaining rigid as a corpse. He was found covered with blood, which had flowed from his nose and ears. The regimental surgeon, after having made a provisional dressing, transported the patient to the hospital, where he arrived in the middle of the night. At my visit in the morning, he was quite insensible. The head was strongly turned to the right side. The eye, on this side, was forced out of the orbit, forming with the eye-lids a prodigious projection, and blackened by a strong ecchymosis, which extended over the face and forehead. The right side of the body was affected with tetanic rigidity; the skin was cold, and appearances announced approaching death. I caused the head to be shaved, and warm embrocations of camphorated vinegar to be applied to the whole body. I dilated the wound freely in all directions, thereby exposing the external plate of the right frontal sinus, which was reduced to splinters; the most moveable of which, with some clots of blood, I extracted. During the incisions, so much blood was voided that it became necessary to tie the branches of the temporal artery, which had been divided. The first dressing was hardly completed before the man, having recovered his faculties, related to us the manner of the accident; and from this time he has mixed in the conversation of his comrades. I prescribed for him diluting drinks, with stimulating glysters, mustard baths, and the application of ice to the head. He passed the remainder of the day with tranquillity; but the skin having become hot, and the pulse accelerated, the surgeon of the guard judged it proper to bleed him, according to instructions which I had left.* Notwithstanding this treatment, the night was greatly disturbed. The

* It is a great, and often a fatal, error to bleed immediately after an accident of this kind. The loss of blood increases the collapse, and often takes away the little resource left to the constitution, for the re-establishment of the equilibrium in the vital functions.

patient complained incessantly of intense pains, which had begun in the occiput and region of the wound, immediately after his recovery from the lethargy into which he had been plunged by the accident; but the medical officer belonging to the guard, fearing a renewal of hemorrhage, thought it imprudent to remove the dressing, and confined himself to the application of ice and the use of the antispasmodic sedatives I had prescribed. On the 23d, the occipital pains having increased, and the irritation being considerable, I caused him to be cupped on the right side of the neck, between the shoulders. The temporal artery was opened, and the ecchymosed parts were scarified. Rag, covered with ointment of styrax, with some soft lint, were placed upon the wound of the sinus, and an aromatic cataplasm over the temporal artery. The application of ice to the head, and the use of diluting and anodyne drinks, were persevered in, and bleeding in the arm was renewed; but the night was passed in great agitation. On the 24th, the pains in the back of the head, were very acute; and, an œdematous point being perceived, I suspected fracture in the corresponding part of the occiput. A deep incision was made, by which I was enabled to feel the surface of the bone, but no depression or inequality was found. I covered the incised part with cupping glasses: it yielded a considerable quantity of blood, and the patient was relieved. The usual dressings and remedies were continued.

‘The suppuration of the wound in the forehead became abundant, and voided itself through the nose. The ecchymosis gradually disappeared, but the patient was deprived of sight on the affected side. The pains in the occiput continued, and the patient began to experience numbness in the two limbs of the wounded side. Between the fifteenth and twentieth day, many small splinters, which had escaped our view, came away, and the wound healed; upon which, the pain in the occiput and temporal region immediately increased to a violent degree. Exquisite nervous sensibility supervened, and the limbs of the affected side were in a state of convulsion, which soon assumed the character of tetanus. The pains in the head became so intense, that he could not bear the slightest touch on these parts without piercing cries, accompanied by shudderings and convulsive movements. After these new symptoms, bleeding was renewed at intervals, in the jugular vein, the arm, and foot. Blood was taken from the nape of the neck, shoulders, and spine, by cupping. Ice was again applied to the head, and mustard baths to the feet. A momentary calm was produced by these means; but the symptoms incessantly recurred, and threatened the existence of the sufferer.

In this alternation of amendment and deterioration, he continued to the forty-first day, at which period the tetanic symptoms of the two limbs suddenly increased. The muscles of the shoulders, arm, and fore-arm, were forcibly retracted, prodigiously swollen, and renitent: those of the thigh and leg were similarly affected. The right testicle was swollen, and acutely painful. To our great surprise, the hairs of the mustachios of the right side stood on end, and could not bear the slightest touch, or the incision of the smallest number of hairs, without producing intense pain. This experiment was many times repeated, and uniformly with the same effect.

‘This extreme increase of the sensibility of all the tissues on the right side induced me to believe that a deep fissure existed either in the right occipital region or in the forehead, which had torn the dura mater, and had produced effusion immediately under this membrane, beneath the tentorium, or under the right lobe of the portion of the brain, as far as the entrance of the spinal canal;—that the consequence of this was inflammation, extending to the origin of the corresponding nerves of the medulla oblongata, and to that of the nerves of the same side of the spinal marrow, being propagated even to the substance of their principal branches. To this circumstance are we to ascribe the pain, numbness, tetanic contraction, swelling of the muscles, and increase of the sensibility in all the soft parts of the two corresponding members; while those of the opposite side, including the organ of intellect, remained uninjured. The mechanism of speech was impaired, and the sight of the right eye was nearly lost: the patient, in fact, scarcely perceived the light, which seemed speckled with sparks of fire. The iris had preserved its functions. The smell of the right side was gone, but the hearing was a perfect as on the other.

‘I entertained a hope that these symptoms would be transitory, and that they would readily yield to local depletion, revellents, antispasmodics, and anodyne diluents, taken inwardly. I first ordered general and local bleeding; a blister was applied to the right temple, caustics to the neck and mastoid region; while moxas and the actual cautery were used, in succession, to the neck and anterior part of the shoulder of the wounded side, with beneficial, but momentary, effect. The symptoms were incessantly renewed by the most trivial causes. The contraction did not yield, in the slightest degree, under the influence of any of the means employed. I tried baths almost cold, and the prussic acid, so much recommended by Professor TOMMASSINI. The first immersion in water was followed by tremors and syncope; nor could the bath be supported at any

temperature. The use of emulsions, made with equal parts of sweet and bitter almonds, to four ounces of which was added from eight to ten drops of the distilled water of the lauro cerasus, produced febrile symptoms, violent colics, and dysentery, with constant tenesmus, and a sensible increase of the cerebral and other inflammatory traumatic symptoms, which had continued from the twenty-first day of the accident. The pulse remained almost natural, and the digestive functions were performed with ease.

‘Such was the condition of the patient till the middle of March, when all the inflammatory symptoms re-appeared, with a sensation as if the bones of the cranium were being drawn asunder by pincers; and the tetanic contraction of the limbs had increased to such a degree, that the extremities of the fingers were imbedded in the palms of the hands, without the possibility of preventing it. Venesection was repeated for the twenty-fourth or twenty-fifth time, and the local bleedings, perhaps, for the hundredth. Ice was again applied upon the head, and the use of mucilaginous and diluting drinks persisted in. The erectility of the hair, accompanied with the most exquisite sensibility, increased to such a degree, that the application of ice, or any cataplasm, could no longer be borne upon the head: we were, therefore, obliged to confine our applications to a retentive bandage, applied with moderate tightness, which produced slight relief. The wound of the forehead was healed on the forty-first day of the accident; but the ulcerations from the caustic were kept open in the nape and right side of the neck; and, in addition to the internal remedies before mentioned, embrocations of camphorated oil of chamomile were daily applied to the affected limbs.

••The man remained in this situation until the 26th of April, 1821, when he was presented to the Medical Society of the Faculty of Paris.

‘The experiment of cutting the hair, although performed with excellent scissars, and without the knowledge of the patient, was followed by shuddering, convulsions, and painful tremblings, with distressing pricking in all the affected parts.

‘Notwithstanding this state of suffering, the man preserved his colour and embonpoint, because, in fact, the vital functions had experienced no alteration; unless we may except the momentary disturbance produced by the prussic acid, although administered in a very small dose.

‘At length the disease became stationary, and we were left in a state of uncertainty as to its termination, yet not without apprehensions of its fatality. The accession of hot weather pro-

duced, however, copious perspirations, which were followed by slight relaxation in the contracted parts, and the pains diminished in intensity. His speech became more free, and he could walk during great part of the day without experiencing bad symptoms. On the 18th of August, seven months after the accident, he was permitted to leave the hospital. He returned in the beginning of January. His hand, fore-arm, and under part of the arm, were now withered: although formerly so painful, they have become almost wholly insensible, and a marked diminution in the temperature is perceivable. The lower limb presents the same character, and the patient experiences cold to a degree of intensity that cannot be overcome by artificial heat.

‘When this species of atrophy arrives at its highest point, I have remarked that the functions of life are endangered. The patient wastes, and falls into a state of anxiety and melancholy so distressing, that he eagerly desires the amputation of the limb. It may become a question whether such an operation be really indicated, and whether the equilibrium of the other functions could be thereby re-established?’

January 21, 1822.

Art. I. *On the Effects of an overdose of Digitalis.* By THOMAS M. FOGO, M.D.

An asthmatic patient suffering from a violent paroxysm, and which did not in any degree yield to means employed ‘flew to the place where several bottles were standing, and, wishing for relief, without hesitation swallowed the contents of the bottle of digitalis, which, by after measurement, we found to contain exactly an ounce, and which his son procured from an apothecary for that quantity. This took place about seven o’clock in the morning.’ Sleep, vomiting, dejection, slight intermission in the pulse, were among the symptoms noticed. At one, an active emetic was given. Dr Fogo goes on,

‘To prevent the sedative effects of the digitalis, I considered the only line of practice to be pursued; though, I confess, I had no great hopes of success in my endeavours; but I was determined to be at hand, and remained by the patient’s bedside the whole night. With this view I began, about nine o’clock, to give him repeated doses of the carbonas ammoniæ, of which I gave him grs. x. in the form of a bolus; but afterwards changed it for the aqua ammoniæ, of which I gave gtts. xx. alternated with ʒiss. of the ether nitrosus, every hour. After he had taken two doses of medicine, I began to mark particularly the variations of the pulse, which had now changed much, in

the frequency of the intermissions, in their length, and consequently in the number of pulsations during a minute.

‘As I had depatched an express for his son, when I began giving the stimulating medicines, his arrival before midnight was satisfactory, for he enabled me to pay all proper attention to his father.

‘The medicines were administered regularly every hour, and in the intervals the patient slept, upon the whole, tolerably composed; and, when he was awoke to take again the draught, always assured us he felt no uneasiness of any kind. The state of the pulse, as noted every half hour, will show how variable it was, even in the course of a few minutes, to eight or ten beats: we therefore preferred stated observations, from which it will be remarked that the sinking of the pulse was by no means progressive, as would probably have been the case if the medicine had been left to itself; and which variation at times led me to encourage hopes that we might be successful in our counteracting plan, remembering, as I did, the case of a young lady, as noticed by the late distinguished Dr Gregory in his Lectures, whose pulse suddenly was diminished to twenty-eight pulsations in the minute, from the accumulation of repeated doses of digitalis, and who nevertheless recovered by the free exhibition of brandy.

‘State of the pulse, as noted each half hour:

At 11 o'clock	58	half-past	56	
— 12 —	52	—	46	
At 1 A.M.	42	—	55	
— 2 —	43	—	66	
— 3 —	42	—	50	
— 4 —	45	—	41	
— 4 —	36	—	41	
— 6 —	59	—	47	
— 7 —	47	—	48	At 7 $\frac{1}{4}$ — 72.*
— 8 —	42	—	48	
— 9 —	46	—	53	
— 15 —	69	—	74	Took tea.
— 11 —	73	no intermission—		
— 12 —	75	—	—	

‘By twelve o'clock the following day, I considered we had completely counteracted the sedative effects of the digitalis, and therefore discontinued particularly remarking the pulse, though from that time it continued pretty steady; and contented my-

* The pulse being at 72 at a quarter-past seven, is to be accounted for from his exerting himself in bed, which in fifteen minutes afterwards fell to 48.

self with merely prescribing repeated doses of the *mixtura camphorata*; which, however, I intermitted in the course of twenty-four hour hours, every danger to be apprehended being by that time removed. Since that period to the present time there never has been the least untoward symptom; and, besides being as it were dragged from the grave, he enjoys wonderfully good health, and is able to go about his usual avocations, without any asthmatical affection whatever.'

(*Edinburgh Medical Journal*. No. 72.)

Art. II. *Case of Purpura Hæmorrhagica*. By GEO. JOHNSTON, M.D. Surgeon, Extraordinary Member of the Royal Medical Society of Edinburgh.

'Sunday, February 3d, 1822, 10 A.M. Mary Gill, aged eighteen, married, of a stout and robust form, complains of intense pain in the head and small of the back, attended with great oppression in the chest, and the feeling of burning heat over the whole body. The skin is red, something like that of a person labouring under scarlet fever; and the whole surface, with the exception of the face and arms, is closely covered with innumerable petechiæ, some of a bright red, others of a purple colour, and varying in magnitude from a mere point to a silver penny. Her arms are quite free of them, but sprinkled over with a considerable number of small, elevated, circular spots, resembling, in every respect, those produced by the sting of the nettle. The conjunctiva of both eyes is in a state of excessive ecchymosis, so that no part of the white can be seen. The pupils are contracted, but no complaint is made of the light. She has had no delirium. The tongue is covered, partly with a dark brown, partly with a white, fur; has some cough, and the sputa are bloody. The lips are parched and rather livid, and blood oozes from the nostrils. Respiration is very rapid, and performed with difficulty; the pulse is so quick and weak that it cannot be numbered. No passage in her bowels has taken place since the commencement of the disease; and the urine is scanty, and deeply tinged with blood. Catamenia ceased fourteen days ago.

'On the evening of Sunday last, she was seized with head-ach and cold shivering, succeeded by the ordinary symptoms of fever,—increased heat of skin, anorexia, and pain of the back and lower extremities. She continued in this state, yet not so unwell as to be entirely confined to bed, until Thursday, when an eruption, compared by the attendants to that of the measles, was observed to cover the whole surface, attended with an increase of all the febrile symptoms. On Saturday every symp-

tom became aggravated; and it was now for the first time that the petechiæ and wheals were noticed. An injection was administered in the morning, which produced no effect; and in the evening she took four of the pilul. colocynth. comp., and two every six hours subsequently, but without producing any evacuation from the bowels.

‘Fourteen ounces of blood were immediately taken from the arm, which induced a strong tendency to syncope. On recovering from this, she felt herself much relieved: the oppression in the chest was altogether removed; the breathing rendered comparatively easy; the redness of the skin disappeared; and a little of the white of the conjunctiva became apparent. The bleeding from the arm was suppressed with difficulty.

‘*R. Calomelanos. gr. v.*

‘*Pulv. jalapæ, ʒj. Ft. pulvis statim sumendus.*

‘*Half-past 3 P.M.* Patient apparently dying. She is however sensible, though it is with great difficulty she can be roused to answer any question. Complains of a pain in the throat; and, on examination, a diffused redness covers the whole upper palate; has spit blood copiously; face and lips pale, and somewhat livid; respiration fuller, and not so quick as in the morning; pulse very weak, and exceedingly frequent; surface of the body rather cold, but not clammy. A little blood, not exceeding an ounce or two, has escaped from the orifice in the arm; the purgative has had no effect. The blood drawn in the morning has not separated into serum and crassamentum. It possesses little consistence or tenacity, but there are traces of coagulable lymph diffused through it. Every attention had been paid to obviate the circumstances which might prevent the formation of a buffy coat.

‘At the request of a gentleman interested in the patient, Dr Robertson now saw her. He directed an injection of a decoction of senna with sulphate of soda, and hot bottles to be applied to the feet; but, before the former could be prepared, the approach of death became so evident to the relatives, that it was not exhibited. She expired a little before six.’

Acetate of Morphine.

‘M. Alloneau, M.D. of Thouars, has detailed eight cases in which he has given this remedy to adults: it was given in doses of a quarter of a grain to one grain per diem, beginning sometimes with a quarter, sometimes with half a grain. Of these eight patients, five were consumptive: the remedy was given to allay the cough and to procure sleep. In two of these cases

it succeeded, in the three others it failed. The other three patients had chronic diseases of the ovary, the heart, and the stomach. This last patient was entirely cured. The affection of the heart was relieved by it; but the effect was only temporary. In the case of diseased ovary, it cured all the numerous sympathetic irritations that existed; but the complaint remained unchanged. It must be remarked, that Dr Magendie had before employed this medicine to relieve the pain of a schirrous breast. The author confirms the observation of Mr Lens, that morphine in these doses does not cause excitement, head-ach, constipation, or stupor, as the other preparations of opium do.'—(*Bibl. Med. Febr.*)

Corrosive Sublimate.

'Dr Davy has made some interesting observations on corrosive sublimate. It is known that the liquor hydrargyri oxymuriatis of the London Pharmacopœia, on exposure to light, slowly undergoes decomposition; and it has been asserted that light has a similar effect on corrosive sublimate itself. Dr Davy relates a number of experiments made to investigate these points. He finds that corrosive sublimate remains unaltered on exposure to light; that it remains unaltered when exposed in solution in media having a strong affinity for it, as alcohol, ether, muriatic acid, &c.; and that decomposition takes place only under circumstances of complicated affinities, as in the instance of the liquor hydrargyri oxymuriatis, and the aqueous solution, when calomel and muriatic acid appear to be formed, and oxygen evolved.

'For the purpose of further illustration of the subject, Dr Davy describes a series of experiments on corrosive sublimate with alcohol, ether, several oils, muriatic and the mineral acids, many of the muriates, &c.; the results of which hardly admit of being given in the form of abstract. In every instance that an oil, whether volatile or fixed, was heated with corrosive sublimate, mutual decomposition took place, charcoal was evolved, and muriatic acid and calomel formed. Besides, when oil of turpentine was used, some traces of artificial camphor appeared; and, when the oils of cloves and peppermint, a purple compound distilled over, consisting of the oil employed and muriatic acid. With muriatic acid, common salt, and some other muriates, corrosive sublimate formed definite compounds remarkable for their solubility.'—(*Annals of Philosophy.*)

Croup.

'M. Villeneuve relates the following fact. He was called to a child attacked by angina tonsillaris, which appeared to be

very slight. Two days afterwards he saw the child, and, to his great astonishment, found all the most acute symptoms of the croup present. All curative means proved unavailing, and the child died. M. Villeneuve, having before seen a case in which an attack of angina tonsillaris, in a child of four years of age, disguised an attack of croup equally fatal, urges the necessity of paying the most scrupulous attention to the state of the organs of respiration, whenever the least change is perceived in the voice of children, although the change may appear to be the result of a different affection.'—(*Bibl. Med.* April.)

Croup.

'Dr Reddelin, of Wismar, has communicated to the Royal Society of Gottingen, through Professor Blumenbach, the following successful treatment of croup, after the usual remedies had been tried without effect. The patient was a female, aged nineteen, who, on the third day after being seized with the croup, was unable to swallow, had begun to rattle in the throat, and seemed approaching rapidly her dissolution. Dr Reddelin insinuated, by means of a quill, a mixture of Spanish snuff and marocco into her nostrils, and, after repeating this mixture a second time, it excited sneezing and vomiting: this occasioned the discharge of two long membranous cylinders from the trachea, upon which the rattling immediately ceased, and the patient rescued from instantaneous suffocation. One of the tubes, when slit open, measured nine French lines in breadth; they were quite elastic, and bore a strong extension without injury to their fibrous texture.'—(*New. Mon. Mag.*)

Bronchocele.

'We have been informed, by a correspondent from Horsham, Sussex, that the iodine has found very successful in the cure of bronchocele in that town and its vicinity. Ten drops of the tincture of iodine taken three times a day, has generally been found to remove the complaint in the course of five or six weeks. The subjects are almost all females, about the age of puberty. In our next we hope to be able to give a more detailed account of some of these cases. It must be remarked, that bronchocele is a disease of very frequent occurrence in that part of the country, and that it scarcely ever is met with in the male sex.'

283. LONDON MEDICAL AND PHYSICAL JOURNAL, SEPT. 1822.

Art. I. *Case of Disease in the Larynx mistaken for stricture of the Œsophagus.* By JOHN SHAW, Lecturer on Anatomy and Surgery.

‘I was lately requested by a physician to examine the body of a gentleman who had died of a disease in the throat, and on the nature of which much difference of opinion had existed. The following is a slight outline of the history of the case.

‘The first symptoms were those of pain in the throat with expectoration of blood; after this had continued for some time, the patient found great difficulty in swallowing; he had also a copious puriform expectoration. This combination of symptoms led the physician in attendance to suspect that there was stricture of the Œsophagus, and probably disease of the lungs. As the stricture of the Œsophagus was supposed to be the cause of the most distressing symptoms, an eminent surgeon was consulted, who, taking the same view of the case, introduced bougies into the Œsophagus, with the intention of relieving the stricture. But this attempt was not followed by any advantage. A third physician was now called in; and he gave it as his opinion that the difficulty of swallowing was not caused by a stricture, but by spasm of the muscles of the pharynx, which was produced immediately on the food coming in contact with the diseased and irritable larynx; and the puriform expectoration he considered to be only a secretion from ulcers in the larynx, as there was no other symptom which indicated disease of the lungs. With this view of the case, he prescribed opiates, which had an immediate effect in obviating the difficulty of swallowing.

‘The question of the existence of a permanent stricture in the Œsophagus was now decided in the negative; but, in opposition to the opinion that the disease was confined to the larynx, it was stated that the patient expectorated so large a quantity of matter, that there could be no doubt of the lungs being diseased. The patient gradually sunk, and at last died apparently from excessive irritation of the larynx, with, however, occasionally such marked symptoms of stricture of the Œsophagus, that the physician who had asserted that there was no stricture, was very anxious that the question should be determined by an examination after death.

‘On the lid of the coffin being raised, the physician was not a little surprised to find a large bloated and putrid body, instead of the thin emaciated figure of his late patient. This was the more inexplicable as the patient had not been dead more than forty-eight hours, and the weather had been particularly cool.

To my eye, the body had much more the appearance of one who had died suddenly of some very acute disease, than of that of a patient who, as I was told, after having been reduced almost to a skeleton, had at last sunk under the irritation of a chronic disease of the throat.

‘On touching the body, I found it to be emphysematous, and, on cutting through the skin, a quantity of very offensive gas escaped.

‘Since the appearance of a body a short time after dissolution is sometimes considered indicative of the cause of death, it becomes important to inquire into the reason of the putrefaction having advanced so rapidly in this instance; particularly as it is generally a long time before the bodies of those who die of a lingering disease become putrid.

‘To account for the putrid state of this body, I at the time hazarded an opinion, which, though certainly speculative, and perhaps erroneous, I will venture to repeat, in the hopes of exciting the attention of others to the question: but this I shall reserve until I have given an account of the appearances of disease which were presented on dissection.

‘The tonsils and the back part of the tongue were found to be slightly eroded, as if from a fretting inflammation; the surface of the epiglottis had precisely the same eroded appearance as that observed in old cases of cynanche laryngea, and with a character very similar to that of several of the preparations preserved in Mr Charles Bell’s collection.

‘The sacculi of the larynx were ulcerated, and the edges of the cordæ vocales were thickened and eroded. The membrane of the larynx was inflamed and thickened; but the marks of inflammation became gradually less towards the bronchii. The lungs were found distended with air, which was with some difficulty pressed out, as there was a slight degree of emphysema in their substance. They were also in some parts adherent to the ribs; and, on cutting into them, a considerable number of small tumors were found, the appearance of which corresponded to the description given by the French pathologists of the millet-seed tumor. However, upon the whole, the lungs were not much affected: indeed, they were in a much better state, than is often found in those who die without having ever had any symptom, which might have led us to suspect that the lungs were affected.

‘The upper part of the pharynx was ulcerated, but only in a degree corresponding to the eroded or fretted state of the tonsils. Here I may observe, that this irritable state of the tonsil is often mistaken for ulceration, and particularly towards the

end of a course of mercury given for primary venereal symptoms; for, about this time, the ducts or follicles of the glands enlarge, their edges become red and fretted, and the secretion of the gland is generally viscid and adhesive. In consequence of this combination of circumstances, the tonsil acquires so much of the character of venereal ulceration, that there is danger of a patient being put under a second and severer course of mercury. I have known instances of this. To distinguish between this irritable state of the tonsil, and one affected by a venereal ulcer, we have only to press upon the side of the gland with the tip of the finger, or with a probe; for by this we shall push out the viscid secretion which is lying in the enlarged follicle, and then the supposed ulcer will appear clean.

‘The œsophagus was now carefully examined, but there was not the slightest obstruction found in it. I could pass two fingers through the narrowest part of the tube.’

Art. III. Mr BROUGHTON's *Case of Lateral Curvature of the Spine.*

‘The subject of the following case affords an example of the advantages attendant upon a strict discrimination between the different forms of disease, usually known by the too general classification of “spine cases.”

‘When the patient leans on one side and projects the hip of the other, drops one shoulder, and has an evident unevenness of the surface of the chest, is much debilitated and disordered in health, it will usually be found, upon examination, that the spine, instead of forming a straight line down the back, is more or less crooked, and curved somewhat in the form of the letter S. Such a patient is generally of a strumous constitution, and the distortion of the medulla oblongata is attended with impeded digestion, and some interruption to all the healthful functions of life.’

‘Clarissa Honeyset, aged twelve years, was brought to me at the Dispensary in Old Burlington-street, on the 26th of March, 1821. The child was pale, thin, and weak, and had been gradually getting crooked of late, which her parents attributed to weakness of body. Her bowels were apt to be disordered, and she had very little appetite. She usually stood by resting on a table or a chair; the body was thrown on one side, the hip projected on the other, and the chest appeared as if growing out laterally. On examining the spine, it was found to be very much bent on one side in its passage down the back. The mother had been advised to have caustics applied. I recommended her simply to prepare a couch without the usual bed-

ding, and merely to lay some blankets across a board, and without any pillow, so that the head might be as nearly horizontal with the body as possible. Some difficulty was at first encountered in getting the child to lie upon the couch so prepared, but it was shortly submitted to with more attention. When its bowels were become regular, the tinctura ferri muriate was given, and a column of cold water was poured upon the back every morning, from a tea-kettle held as high as possible.

‘In a few weeks, I had the pleasure to find the child’s health improving: it evidently gained flesh, became ruddy in the face, enjoyed its food, and rested soundly at night. Subsequently the child appeared to be less crooked, and certainly stronger; so that the parents were encouraged to persevere, which they did unremittingly. The child herself also became indifferent to rising, and amused herself with sewing, &c.

‘In this posture she continued some months, never getting up for more than a few minutes at a time once in twenty-four hours; and, in somewhat less than a year, I found her running about quite strong, straight, and healthy; her parents having found that latterly she seemed to suffer a little from confinement, and, since she had regained her upright position, they relinquished any farther perseverance, taking the precaution to let her lie on the bed occasionally during the day; which I advised the adoption of for some time whilst the girl was growing.’

Great Marlborough-street; July 1822.

Art. VI. *On the Treatment of Carbuncle with Escharotics.*
By ROBERT SWALLOW, Staff Surgeon.

The first case was Lord Clermont. He had before suffered from the disease, and been confined nearly two months to his room. The present attack had continued three days before Mr Swallow was consulted.

‘On my being consulted’ says Mr R. ‘I found it to be a true characterized carbuncle; and, as he had just recovered from a long confinement from a similar disease, I advised his lordship to submit to its being destroyed by an escharotic, to which he readily consented. I made, therefore, a crucial incision, the full depth, length, and breadth of the disease, and filled up the incised places with dossils of lint well moistened with equal parts of liq. arsen. and water: the latter was renewed every hour or two. After twenty-four hours’ application, a slight eschar began to form, the surrounding inflammation and pain evidently diminishing. Continuing it twelve hours more, a sufficient eschar was formed, and the pain and inflammation ceased. A common poultice was then applied very frequently, until the

eschar separated. which, leaving a clean wound, was healed with the common simple dressings.

‘The other case of the disease occurred to a poor woman in this town; was situated in the dorsal vertebræ, and had existed ten days before she applied for advice: it was, therefore, of considerable size, and in a state of ulceration. Similar incisions were made as in his lordship’s case, and the same remedy applied with the like beneficial effects; the pain and peculiar inflammation attending the disease subsiding as soon as the eschar began to form.’

Art. IX. *On the common syringe with a flexible tube as applicable to the removal of opium and other poisons from the stomach.* By F. BUSH, Surgeon.

‘The common occurrence of death’ says Mr Bush, ‘from opium, either when taken by accident or design, shows that we have hitherto not been acquainted with any certain means of ejecting it from the stomach, or of counteracting its effects.’ The method proposed by Mr Bush in this paper, is precisely similar to that first suggested by Boerhaave, and improved by Messrs Dupuytren and Renault, in cases in which poisonous substances have been swallowed, and in which the patient is unable to swallow. M. Renault says that he has injected to the extent of eight ounces of water into the stomach of several little dogs, and have always been able to pump up the whole. Black’s *Orfila on Poisons*, p. 20. In our own country, Dr Physic of Philadelphia has been for many years in the habit of recommending the flexible tube and syringe, in cases in which opium had been taken in dangerous quantities, and in which vomiting could not be excited.

Art. X. *Remarks on Mr Gilder’s case of Vaccine Disease and measles existing at the same time in the same individual.* By H.

Mr Gilder’s case is contained in the last volume of the *Medico-Chirurgical Transactions*, a review of which will be found in another part of our Journal. The object of H’s paper is to show that Mr G.’s case cannot be considered conclusive against Mr Hunter’s doctrine that no two actions can take place in the constitution, or in the same part, at the same time, until the experiment of inoculation be performed in the individual, whose case is given by Mr G.

COLLECTANEA MEDICA.

Art. I. *Cases illustrating the decided efficacy of cold affusion in the treatment of Poisoning from Opium.* By SEPTIMUS WRAY, Esq.

‘Case 1.—I was called, early in January 1821, to Mrs E——, who had, half an hour before, taken about two ounces of laudanum. I found her in bed, in a state of profound stupor. Her pulse was much quicker than natural; her pupils were dilated. Every means which could be suggested at the time were employed to rouse her from her lethargy, but without effect. Under such circumstances, no internal remedies could be administered. I afterwards had recourse to cold affusion, which produced the most decided benefit. A large bucketful of cold spring water was brought into the room, and a quart basinful was forcibly thrown on the head and chest. It roused her on the first application, but immediately afterwards she relapsed into the same state of stupor. By resorting repeatedly to the same means, in about ten minutes I had the satisfaction of hearing her speak. An emetic was then administered, which operated freely. Vinegar and water were given afterwards, and on the least tendency to drowsiness the cold affusion was repeated. I had the gratification, the following day, of seeing this lady perfectly restored.

‘Case 2.—April 17, 1821. A gentleman, residing in the vicinity of Chancery-lane, took two ounces and a half of laudanum, in a fit of desperation, on account of some losses he had sustained. Immediately after taking it he became sensible of his folly, and informed the waiter of the coffee-house, where he was at the time, of the circumstance, who immediately sent for a medical gentleman. An emetic was instantly administered, and, after its slight operation, he was put into a hackney-coach, and driven to Fleet-street, where he had given his address. The coachman, on opening the door, found him lying at the bottom of the coach, in a state of perfect stupor, from which he could not be roused. He was taken in this state to the watch-house, where he was recognized, and thence conveyed to his own house; when another medical man and myself were sent for. That gentleman, having arrived some time before me, had employed the usual means in order to rouse him from the state of coma into which he had sunk. Every attempt produced merely a momentary effect; when left alone, he dropt into his former condition. As soon as I arrived, I requested that the cold affusion to the head and chest might be tried. A few applications of it, in a similar manner as in the former case, had the effect of removing

completely the profound stupor, and the other alarming symptoms which were present. He complained, the following day, of head-ach and soreness in the epigastric region: the former arising, most probably, from the effects of the opium on the nervous system; the latter from the irritation induced by the strong emetics administered in order to produce full vomiting. These symptoms soon yielded to bleeding and other antiphlogistic means.

‘Case 3.—On the night of May 12, 1822, I was called to Mrs W—, Whitefriars, an extremely delicate young woman, about twenty-five years of age, who, at half-past ten, had taken two ounces of laudanum, with the intention of destroying herself. Having been at that time particularly engaged, I sent my assistant, with directions to employ the cold affusion, and to administer an emetic as soon as deglutition might be accomplished. If the symptoms were very alarming, he was also instructed to send for me. Immediately after his arrival, I was again sent for, at his request. On entering the room, he acquainted me that he had considered it too late to do any thing, and therefore had not attempted it. She appeared, in fact, when I arrived, nearly dead. During the preparation for the cold affusion, I endeavoured to rouse her by various external means of irritation, but with no effect. The pupils were dilated, and quite insensible to the light from a candle that was presented close to them. The pulse could occasionally be felt in slight undulations, and the body possessed a considerable degree of warmth. The head and chest were raised, and I began by throwing a large basinful of cold water forcibly on the head, which produced an evident twitching in the muscles of the face. By repeating these means, at intervals of some seconds only, she uttered a lamentable scream, much resembling that of a person recovering from suspended animation by immersion. After a few more applications of the affusion, a very strong emetic was administered, with considerable difficulty; but it was no sooner taken than she relapsed into the same state of inanimation, from which she was only restored by the frequent and forcible dashing of the cold water on the head and chest. She was afterwards raised from the bed, and carried up and down the room between two persons, with nothing on but a chemise; and, by the repeated employment of the affusion, she might be said to have been in a continued shower-bath. In about half an hour from the exhibition of the emetic, it began to operate slightly. The ejected matters smelt strongly of laudanum. The vomiting was promoted by warm water and an additional emetic. After the stomach had

been emptied, vinegar and water were freely administered. Notwithstanding these means had been used, she frequently relapsed into a state of syncope, from which she could only be roused by a fresh affusion. In about three hours from the commencement of the treatment, the pulse acquired greater force, and her appearance altogether showed an evident return of the powers of life. By constant attention, during six hours, to the means already employed, whenever they appeared requisite, I had the satisfaction to see her sufficiently restored to allow her, with perfect safety, a few hours of repose. She only suffered a little from debility, during two or three days.'

London Med. Repository, July, 1822.

Art. II. *A case of Poisoning by Opium, in which the cold affusion was successfully employed; with observations on the medical management of similar occurrences.* By J. COPLAND, M.D. &c.

The management of this case in addition to the dashing of cold water copiously, and with considerable force, upon the head, consisted in the internal use of stimulants, and blood-letting. These were employed after the patient was effectually roused and had been freely vomited. The first, consisting of spirits of lavender, and liq. carb. ammon, in strong doses were usefully exhibited when oppression at the precordia accompanied by sighing were urgent; the latter for pain in the stomach, which was increased by pressure, and also to assist in relieving the oppression about the precordia. A stimulating cathartic draught was also given.

London Medical Repository, July.

Art. III. *On the most efficacious means of remedying the effects of Opium when taken in poisonous doses.* By J. H. SPRAGUE, Surgeon.

This paper contains suggestions merely, which are not supported by details of cases in which the varied treatment recommended has been tried. To supply these, however, Mr Sprague says. 'I have thus endeavoured to concentrate the most decidedly efficacious practice in cases of poisoning by opium, and I can with the more confidence recommend the above treatment, as I have witnessed its complete success in several desperate cases where the usual means resorted to have been tried, and entirely failed.' The complete success of the treatment employed by Mr Wray, and Dr Copland above given, makes it unnecessary at this time to add that of Mr Sprague.

284. LONDON MEDICAL AND PHYSICAL JOURNAL, OCT. 1822.

Art. I. *Remarks on Tar-Vapour, as a remedy in diseases of the Lungs. Illustrated with cases treated at the General Military Hospital, Fort Pitt.* By JAMES FORBES, M.D. &c.

The object of Dr Forbes in this paper is to show from numerous trials with Tar-Vapour in the treatment of diseases of the lungs, what its real worth is in these diseases,—to show where it has been useless or injurious, and where it has done good.

Dr Forbes tried Tar-Vapour in nineteen cases of Phthisis Pulmonalis. It cured none. It improved none. It had no effect on eight, and it produced bad effects in eleven. He tried it in thirty two cases of Chronic Catarrh. It cured eight. It improved six. It had no effect in eighteen, and had bad effects in none. It would give us much pleasure to give our readers the whole of Dr Forbes' paper. It is however too long for this. We shall therefore first extract the two cases of Phthisis, in which the effects of Tar-Vapour are displayed, with some connected remarks; and then three cases of Chronic Catarrh which were also submitted to this remedy.

'Case 1. Simon Burton, æt. 23, of strumous diathesis, has laboured under pectoral complaints for nearly two years; breathing very much oppressed; cough frequent, with copious purulent expectoration; pulse 120, moderately full; perspires copiously at night, and his bowels are generally constipated; tongue clean; appetite pretty good. He is much emaciated; his symptoms undergo considerable exacerbation in the evening, and he is hectic to an extreme.

'April 29th.—Ordered the tar-vapour.

'30th.—Passed a restless night; breathing more laborious, and cough more troublesome.

'May 1.—Respiration continues to become more difficult; cough undiminished; complains much of thirst; pulse 132.

'Three o'clock, same day.—Since last report, his respiration has become extremely difficult; the cough almost incessant; and there is anxiety of countenance and general inquietude. Removed immediately to another ward. This patient, on his removal from the tar-vapour ward, became in every respect easier; respiration was performed with comparative freedom, and the cough and other symptoms suffered considerable abatement. I have little doubt that, had the use of the remedy been persisted in, he would shortly have died by suffocation. He died on the 21st of May, and the lungs were found much tuber-

culated: most of the tubercles in a state of ulceration, and strong adhesions between the pleuræ.

‘Case II.—William Taylor, æt. 22, has laboured under pulmonary affection for eleven months. Respiration hurried and laborious; cough frequent and severe, accompanied with purulent expectoration; pulse 120, of good strength and fulness; occasionally perspires profusely, and his bowels are prone to constipation. Emaciation and debility considerable; tongue clean; appetite indifferent. Towards evening, his breathing becomes more difficult, and the other symptoms also suffer considerable exacerbation. The pulsation of the heart is widely diffused, and is best felt at the epigastrium.

‘April 29.—Put under the use of the tar-vapour.

‘30th.—Had a restless night, and his breathing is rather more oppressed; the cough more distressing, and there is general inquietude; pulse 124.

‘Three o’clock, same day.—Respiration much more impeded, and the other symptoms considerably aggravated. He anxiously desires to be removed to another ward.

‘The tar-vapour obviously did harm in this case, as in the other. The patient died about eight days after his removal. He was often heard piteously to lament his ever having tried the “tar-smoke,” as he had “never recovered the breath he had lost under its use.”

‘On dissection, the lungs were found a complete mass of disease, much tuberculated, and containing many small vomicæ. The diffused pulsation of the heart led to the opinion that there existed some disease of that organ: after death, however, no morbid appearance of it was discovered. This is a circumstance worthy of notice, as such an appearance is calculated to deceive many. I believe it is frequently met with in emaciated subjects.

‘In the other four cases, the disease followed its usual progress, and, on dissection, they were all found to have tuberculated lungs. In one of them, a large vomica occupied the upper part of the left lung; in another, several small vomicæ were found. In these the tar-vapour did not produce such distressing symptoms, but yet their complaints were considerably aggravated; and so much so in two of them, that it became absolutely necessary to discontinue the remedy; and, in all these cases, the pulse became more frequent during its exhibition, the cough and dyspnoea more urgent, and the expectoration diminished, which last effect seldom failed to render the breathing more oppressed. One appeared at first to improve somewhat under its use; but latterly, and as his complaints became

worse, (for they were never obviously retarded by its employment,) it certainly did manifest harm, producing the same distressing effects as in the cases detailed, which did not cease for several hours after exposure to the vapour. The quantity of expectoration was occasionally diminished by its use; and, though his symptoms were not at all times aggravated by this change, yet they generally were so, and he always experienced an alleviation of the dyspnœa, and was otherwise considerably benefited, by the return of a free and copious expectoration.

‘From the unsuccessful results of the cases above mentioned, I had nearly given up the hope of the remedy affording any advantage. I was inclined, however, to think that some of its injurious effects were to be attributed to some imperfection in the process by which the vapour was produced. After various trials, the mode already described was adopted; and since that no case has occurred in which the symptoms were so much aggravated as in those of Ruston and Taylor.

‘In not one case, out of nineteen submitted to its action, has the tar-vapour given evident proofs of its power either to arrest or to ameliorate the symptoms of the disease. It is true that several patients, during the two or three first days, have expressed themselves benefited by it; but these very patients have in a short time after, either suffered so much from its effects as to request their removal to another ward, or have entirely denied their having received any benefit from it. It is well known that phthisical patients, in general, judge very erroneously respecting their complaints, and from day to day return the same answer, “I am better,” when in fact they are daily getting worse. It may be observed, farther, that such patients not unfrequently over-rate the good effects of medicine, and are sometimes apt to bestow unbounded praise on the most inert remedies. It has often appeared to me, that whatever is capable of interrupting, or changing in any degree, the protracted and monotonous progress of phthisis, is to the patient a source of gratification. This I apprehend to have been the case with many patients admitted into the tar-vapour ward, who, perhaps, sanguine in their expectations of its doing them good, do not, for the first day, (during which it gives little inconvenience,) make any complaint, but perhaps give to it some praise. They, in a short time, however, either make loud complaints, or cease to allow that they have been benefited.

The most direct and obvious effect of tar-vapour is to diminish the quantity of expectoration. This, in catarrhal affections, is followed by no unpleasant symptoms: on the contrary, the cough and dyspnœa, but more especially the former, un-

dergo a corresponding diminution; but in phthisis nearly the reverse of this happens, for, in proportion as the sputa become diminished, so does the cough become more frequent, and the difficulty of breathing greater. We have observed, however, that some phthisical patients may remain for a considerable time under the use of this remedy, without experiencing any unpleasant effects; but, in the generality of cases, it has produced the bad effects already mentioned. It has appeared that, so long as the tar-vapour does not suppress the expectoration in any considerable degree, it may be found, in some cases of phthisis, a grateful remedy; and we have reason to infer this from the circumstance of some patients, in a very advanced stage of the disease, expressing their partiality for it: but, unfortunately, this has only been observed during the first days of using it, for, in every instance in which it was continued for any considerable length of time, it has invariably occasioned a scanty and difficult expectoration.

‘In all cases where the disease was far advanced, the tar-vapour aggravated the symptoms, and coughing has taken place sooner or later, according to the greater or less extent of disorganization; and these effects have, in every case, appeared to arise from a diminution in the quantity of the expectoration. Patients with diseased lungs, as above mentioned, may remain for a considerable time under the remedy, with little or no inconvenience; but, as soon as any considerable deficiency takes place in the expectoration, the cough, which before may have been moderate, now becomes much more frequent and distressing; and, in most cases, this has been accompanied with increased difficulty of breathing. It may here be necessary to remark, that to an inattentive observer, and even to the patient himself, the expectoration in some cases would appear to be increased, or at least not diminished in quantity; but, when carefully examined, will be found to be much less purulent than before the use of the vapour,—to have assumed a frothy appearance,—and to contain a much larger proportion of mucus and saliva.

‘In one or two cases of incipient consumption, in which the tar-vapour was used, though its bad effects were not evident, yet no good apparently resulted from it. Indeed, I am sorry to say that we have not yet seen one unequivocal case of the disease in which it appeared to be of the smallest benefit, but several wherein it could hardly be said to have produced any bad effects, excepting slight head-ach and thirst; symptoms which most patients experience on commencing the use of the remedy.’

Chronic Catarrh.

‘Case I.—Barnett Gromley, ætat. 35, complains of frequent cough, with which he expectorates a mucous matter in considerable quantity. Respiration oppressed on using exercise; pulse 100, moderately full and strong. On using any great exertion, he is occasionally troubled with palpitation of the heart. Some perspiration at night; bowels regular; tongue furred; appetite good. Within the last month his complaints have become less severe, and he has gained some flesh; at present he is not much debilitated, nor is his emaciation at all considerable. His complaint commenced about eighteen months ago in Jamaica. He is of a sanguineous habit, and well formed about the chest.

‘June 12.—Ordered the tar-vapour.

‘13th.—Passed a good night, and says the tar-vapour has relieved the difficulty of breathing, and diminished the frequency of the cough. Pulse as yesterday.

‘14th.—Says he has experienced considerable relief from the remedy. The cough is now comparatively trifling, and the dyspnœa is considerably diminished. Pulse as before.

‘15th.—Expresses himself nearly free from complaint. Pulse unchanged.

‘16th.—Says he has now no cough, and is much improved in other respects.

‘This patient continued to improve till the 24th, when he was transferred to the convalescent hospital free from all complaint, except some inconsiderable remains of dyspnœa.

‘Case II.—John Ring, ætat. 27, is affected with frequent cough, more especially towards morning; the expectoration is apparently mucus; pulse 100, moderately full and strong; breathing oppressed on using exercise, but when at rest is performed with little difficulty; tongue clean; appetite, &c. natural. He has fallen away a good deal in flesh and strength, and within the last six weeks his complaints have improved. He has laboured under them for a year and a half; they commenced in Jamaica. He is of a sanguineo-phlegmatic habit, and rather flat and narrow about the chest.

‘June 12th.—Put under the use of the tar-vapour.

‘13th.—Passed a good night, and his cough has been less troublesome. Pulse as yesterday.

‘14th.—His breathing is not nearly so much oppressed; the expectoration is considerably diminished, and the cough is comparatively trifling. Pulse 104.

‘16th.—The cough and expectoration are now inconsiderable. Pulse 100.

‘17th.—Says he is free from cough, and nearly so from dyspnoea. Pulse as yesterday.

‘18th.—Dyspnoea inconsiderable; pulse 100. This patient was transferred on the 24th to the convalescent hospital, free from complaint.

‘Case III.—Thomas Perkins, 1st Foot, ætat. 28, complains of frequent troublesome cough, with copious purulent expectoration. Respiration hurried and oppressed on using exercise, but when at rest appears to breathe with freedom; pulse 92, rather small, but of good strength; appetite indifferent; bowels loose, with some degree of tenesmus; emaciation and debility considerable; general surface shrunk and dry, and he complains of cold; tongue slightly white, with some thirst; says that he feels a soreness in his chest, but has no degree of pain. He has laboured under the above complaints for two years; they commenced in India, in which climate he remained for nine years. States that, about six years ago, he was attacked with dysentery; the present complaint of the bowels came on about two months ago, and has continued without any remission. Astringent mixture to check the diarrhoea. and a common pectoral mixture for his cough, were prescribed. On the following day the purging was diminished, but his breathing more difficult, cough more troublesome, and the pulse increased to 104. The same treatment was continued, and the following day he expressed himself considerably relieved in the chest by the tar-vapour; his breathing less oppressed, cough and expectoration much diminished. On the fifth day after his admission (June 11th.) the expectoration was observed to have got the purulent, and more of the mucous appearance; his breathing was performed with more freedom; cough continued to decrease; pulse 104; yesterday it was 124.

‘This pectoral affection continued improving daily, but on the 15th of June the diarrhoea was increased, when the power of the astringent mixture was augmented by the addition of the extract. hæmatox. From this date he continued improving in all his symptoms until seven o’clock P.M. of the 21st June, when he was attacked with the following symptoms:—He was suddenly deprived of motion, accompanied with irregular actions of the muscles. Two hours afterwards the body appeared paralyzed, and he complained of a sense of weight in the forehead; his pupils were dilated and impenetrable to light; lips and face livid; breathing hurried, but free from stertor; pulse 130, moderately full and strong. When interrogated, answers distinctly, but with reluctance. Twenty-six ounces of blood were now taken from his arm, and sixteen ounces by cupping from

the temples. Next day he said that he had quite recovered the power of motion, but still complained of the weight in the forehead. Eyes natural; pulse 104, moderately full; bowels open. Fourteen ounces again taken by cupping on the temples. In the evening the sense of weight was gone, but his pupils were considerably dilated. His head was now shaved, and a large blister applied to it.

‘June 23d.—Pupils natural in size and sensible to light; but he experienced a sense of coldness and numbness in his inferior extremities, and was unable to support his body on them. Pulse 120, small. Blister did not rise well, and another was applied to the neck.

‘24th.—Had recovered the power of motion, and the numbness of the legs was gone. Face pale; lips livid; pulse 110; cough and dyspnoea much relieved.

‘25th.—The livid colour of the lips disappeared, and his only complaint debility. Pulse 96. He continued daily to improve under the influence of the tar-vapour, and was discharged from the hospital, 20th November, greatly improved.’

Art. VI. *An account of successful Treatment of a case of Suppression of Urine.* By WM. BIDWELL, Surgeon.

In a former number of our Journal we published some interesting cases of fatal *Suppression of Urine*, by Sir H. Halford. The following is given as a case of a similar affection, which terminated successfully.

‘On Thursday, the 3th of August, I was called to a man named Jenner, a carpenter, residing at Burwash, who had not voided urine for three days. He was verging on sixty, and of a plethoric habit. He complained of great pain in the course of the ureters and in the hypogastric region; anxiety was strongly depicted on his countenance; the pulsations of the radial artery were hard, full, and jarring, not exceeding ninety. No probable cause could be assigned for the complaint. Mr Weston, the attending practitioner, had previously abstracted twenty-four-ounces of blood, administered saline cathartic medicines, recommended the warm bath, and passed the catheter. On examination, I could not perceive that intumescence above the pubes which characterizes retention; nor did the sensation of a distended bladder present itself to the finger in the rectum.

‘I considered it, however, my duty to pass the catheter, but no water followed its introduction. I was now convinced the case was suppression. I ordered him to be bled in the erect posture, and, though nearly three pounds were abstracted, the

depletion was not attended by syncope. I directed that he should be immersed in the warm bath twice during the night, and prescribed the following:

‘R. Pulv. Digital. purp. gr. j.

Syr. q. s. fiat pilula, omni 3tia horâ, cum haustu sequente sumenda.

‘R. Misturæ Camph. ʒjss.

Spirit. Æth. Nit. ʒiij. M. fiat haustus.

‘On visiting him the next morning, he expressed considerable relief, though the renal glands had not resumed their secretory functions. Perceiving great tumefaction, I applied cupping glasses over the lumbar region, and abstracted blood to the extent of three pints. The anguish of the patient was still further alleviated by this evacuation. Convinced that nothing but bold and decisive practice could afford the most distant hopes of recovery, I ordered as follows:

‘R. Hyd. Submuriatis, gr. j.

Pulv. Digitalis, gr. ij. Fiat pilula, 3tia quâque horâ cum haustu sequente sumenda.

‘R. Inf. Digitalis fol. recent. ʒjss.

Spirit. Ætheris Nitr. ʒiij. Fiat haustus.

And this plan of treatment to be persisted in as long as the suppression lasted.

‘I now took leave, requesting Mr Weston to inform me of any material change in the patient. On Sunday afternoon he sent word, that the urinary secretion continued suspended, and that singultus and tendency to coma had supervened, with a sinking pulse. Conceiving the case as hopeless, I ordered the digitalis to be omitted, and to take the following:

R. Æther. Rect. ʒss.

Misturæ Camph. ʒvj. M. Capt. cochl. ij. larg. 3tia quâque horâ.

‘On Tuesday I was informed that the man had discharged large quantities of urine, and was rapidly recovering. The kidneys had recommenced secreting the day previous, having been in a state of total inaction for six days.

‘The following reasons have induced me to publish this case:

‘First, This disease almost universally terminates fatally.

‘Secondly, The proximate cause of death has been proved to be apoplexy.

‘Thirdly, No regular treatment of this complaint is laid down by authors.’

Warbleton, Sussex; August 26th, 1822.

Petrifaction in the Corpora Striata, observed by M. AVISARD,
D.M.P.

A water-carrier, fifty-seven years of years, a strong and hearty man, suffered for two years severe cramps in the calves of his legs, which recurred from time to time, and were occasionally so painful as to oblige him to keep his bed for a day or two. In the beginning of March, 1818, he had an attack; but this time the cramps were not confined to the legs: the fingers were strongly bent on the hand, the fore-arm on the arm, and the latter brought close to the chest. He had vertigo, and a sense of weight in the head; an inclination to vomit; little sleep; and no appetite. He took four grains of emetic tartar, in two portions, without effect. The next day, a purgative produced eighty stools. He was taken to the Hotel Dieu on the 8th of March. His eyes were injected; his face red, and convulsed on the right side; speech and pronunciation extremely difficult; the heat of the body intense; the pulse frequent and full; great thirst; the epigastrium tender to the touch; extending the fore-arm and fingers gave pain, and brought on convulsions; the lower limbs in a painful state of extension; no diminution of sensibility in the limbs. He was bled, and put upon a rigid diet. Fifteen leeches put upon the epigastrium lessened the pain. Next day, the abdomen appeared less full, the face was calm, but no other alteration. Twelve leeches were applied to the neck, and the same number in the evening. The four following days, the symptoms continued much the same: the motions of the hands and arms were, however, more free, and the fever somewhat less. This amendment continued until the fourteenth day, when the fingers of the right hand alone remained bent. On the fifteenth day, deglutition became more difficult; violent fits of coughing came on, convulsions, a sense of suffocation, a burning skin, and a frequent and very small pulse, were the most prominent symptoms. The day following, all these appearances had subsided, and the patient was as on the preceding days. A warm bath and cold affusion upon the head was prescribed, during which convulsions and suffocation came on. In the evening there was no fever, and the fingers of the right hand could be extended. On the following days, the baths and affusions were continued: the same effects always ensued during their administration; but there was no fever in the evening, and the limbs were as pliant as when in health. On the twentieth day, difficulty of respiration came on, violent fever, and a little cough. On the twenty-first, the pulse was scarcely perceptible; rattling in the throat ensued; and that day he died.

‘*Dissection.*—Head: The arachnoid membrane was white and thickened, especially upon its upper part; the brain very firm; in the corpora striata, about thirty petrifications were found, from the size of a grain of millet to that of a pea; there was very little serum in the ventricles.—Abdomen: The great curvature of the stomach presented a large brown patch, of the size of the palm of the hand; the mere rubbing with the hand was sufficient to detach the mucous membrane from the others. There was no redness of the intestines, but some of the mesenteric glands were larger than natural.

‘*Reflections.*—The appearances of the stomach are referred, without hesitation, to the dose of tartar emetic, and to the violent purgative; and to this cause is attributed the difficulty of swallowing and the cough. The petrifications found in the corpora striata, and which, it is presumed, gave rise to the spasmodic motions of the limbs,—are they not fresh proofs of the difficulty of recognizing, at the bed-side of the sick, the different accidental or organic causes of diseases of the brain?—(*Bibl. Medicale.*)

Application of Auscultation to the Study of Pregnancy.

We formerly noticed M. Kergaradec's remarks on this subject: these have since been reviewed by M. Duges, who asserts that he has tried it on twelve women without success. To this M. K. has written a reply, of which the following is an extract: —“To his negative I oppose the positive testimony of Messrs the Professors Recamier, Béclard, Désenneaux, the Doctors Laennec, Delens, Deneux, Ducamp, Foderà, Jacquemin (fils,) Meirceo, Parent, Petit (physician to the Hotel Dieu,) Rey, and Villermé, at Paris, &c. &c. &c. Among these, some have very distinctly heard the simple pulsations, with hissing; others the double pulsation; and the greater number both orders of pulsation. Is it to be supposed that witnesses, so numerous, enlightened, and respectable, would all have allowed themselves to be deceived by illusory sensations? The reality of the new signs of pregnancy is, therefore, now ascertained, &c.

Experiments on Incubation.

M. Geoffroy Saint-Hilaire has communicated to the Institute of France an interesting account of different methods by which *oviparous* animals may be rendered *viviparous*. These experiments completely succeeded with regard to water-snakes (*couleuvres aquatiques*;) when placed in a dry situation, and under circumstances unfavourable for dropping their eggs. These

were retained by the parent, and preserved in the genital receptacle; so that, at the end of a certain period of this uterine incubation, the young came forth from the eggs and the body of their mother. These experiments were not followed with equally successful results in those animals whose eggs have calcareous shells. Notwithstanding his endeavours, M. Geoffroy has not succeeded in effecting the production of young chickens alive; but he is led, from his observations, to believe that this might be done by better contrived means.

Sympathy and Sensation.

‘Dr Foderà, in a paper read before the Academy of Sciences, has endeavoured to establish a positive distinction between these two phenomena, which have been supposed to have their common origin in nervous sensibility. His opinion is, that sensations are always effected through the medium of the nervous system; whilst sympathies are more generally phenomena of vitality, and belong to all organized beings. They are effected by continuity of texture, and are altogether independent of the nerves. In this class of facts M. Foderà ranges the movements of plants and the different communications of living organs, whether in their functions or diseases.

Rudiments of a Fœtus in the Testicle.

Dr Freidlander relates that a child was born in December, 1817, at a village near Glogau, which at first appeared in all respects healthy and natural. In the month of May following, it was seized with difficulty in making water, and the right testicle began to enlarge. By the 19th of June, the testicle had so much increased as to descend to the knee. On the 19th of July, a ligature was applied near the ring, which came away on the 22d, and the child did well. The testicles was four inches three lines (Rhine measure) in length, two inches four lines in breadth; its weight, seven ounces; the epididymis was entirely wanting. After careful examination of the tunica vaginalis, a hard body was perceived, which proved to be an os femur, eighteen lines long, and without periosteum. Several other bones were subsequently found, connected, by means of cellular texture and muscular fibres, in such a manner as to form the pelvis and right lower extremity of a fœtus about four months old. The left branch of the os pubis and os ischium were wanting; the ileo-femoral articulation presented a triangular appearance; the sacrum was distinct, with its surface for receiving the first bone of the spinal column; in the

middle of the pelvis was a ligamentous mass, about an inch long, resembling the rudiments of the lumbar vertebræ. The tibia and fibula were naturally formed; the interosseus ligament "a little too thick."

'Several cases of this kind are on record in the works of Meckel, Dupuytren, &c.; and, in confirmation of the above, it may be mentioned that it was observed by C. Dietrich, at Glogau, a doctor, counsellor, and man-midwife!'

Croton Tiglium.

'A letter from Mr Thomson, of the East India Company's service, dated Dinapore, 16th January, 1822, contains the following passage:—"One of the seeds (of the croton,) reduced to powder, and made into two or three pills with a little pepper, forms the most common purgative used by the natives of this part of India. It acts speedily and powerfully; but I suspect, if not conjoined with some aromatic, it will occasion much griping. We now use it pretty frequently, combined with ginger, and, since the receipt of your letter employ the expressed oil with similar results. The latter, given in a dose of one drop, almost always purges with considerable activity; but it must be taken in some mucilaginous vehicle, for it will blister the tongue and fauces when taken by itself. I have given as much as ten drops at once, which induced instantaneous vomiting, followed by purging, but no other bad consequences ensued. In doses of three or four drops, it acts quickly and powerfully, emptying the bowels of their contents, and generally produces eight, ten, or a dozen evacuations. In certain habits and complaints, I conceive, it will prove an excellent purgative, and, from its cheapness, may be introduced with advantage into hospital practice. * * * When applied externally as a liniment, it produces a profuse crop of small pustules on the part, which may render it of service in certain chronic complaints. I have not yet, however, had sufficient opportunities of ascertaining all its medicinal properties.'"

Operation of cleft Palate.

Roux has lately succeeded in removing this deformity in a young man, who had a natural division of the velum pendulum to so great an extent as to almost entirely deprive him of the power of articulation. By means of an ingenious operation, resembling that for hare-lip, M. Roux was enabled to bring the flap together, and procure their union in a favourable manner. He has already practised the operation, with similar success, in another case.'

283. LONDON MEDICAL AND PHYSICAL JOURNAL, SEPT. 1822.

STATISTICAL MEDICINE.

Art. 1. Annual Report of the Liverpool Institution for *diseases of the Eye*, for July 1, 1822, to June 30th 1822. By ALEXANDER HANNAY, M.D. Physician to the Institution.

‘I may take this opportunity of remarking, that we have been using the extract of stramonium pretty extensively in all those diseased states of the eye, in which the belladonna has usually been employed with such good effect, and have found it to be fully more active and efficient than that valuable medicine: indeed, in some cases it succeeded when the belladonna produced no alteration on the pupil. As, however, at some future period, I may recur to this subject, I shall not at the present trespass farther on your indulgence than by mentioning to you, that I, a few months since witnessed the most violent symptoms from the extract of stramonium taken internally, in the form of decoction, by mistake for the extract of sarsaparilla. The symptoms, however, happily yielded to the powerful remedies (most assiduously used,) usually had recourse to in counteracting the fatal effects of the narcotic poisons.’

Liverpool; 22d July, 1822.

The whole number of cases treated in the above period amounts to 977.

“Of whom, 708 have been discharged cured,

72 more or less relieved,

34 incurable or irregular,

and 163 are now remaining upon the books.

‘Twelve cases were successfully operated on for the cataract and artificial pupil, including a patient born blind.’

MEDICAL AND PHYSICAL INTELLIGENCE.*Large Human Calculus.*

A large human calculus has been described by Prof. Cumming, of Cambridge: it weighs 32 ounces, and measures $15\frac{1}{2}$ inches in circumference. Its specific gravity is 1.756. The nucleus is lithic acid, and to this succeeds a considerable portion of the oxalate of lime, then layers of the triple phosphate, covered by a thick coating of lithic acid, the external surface being composed principally of the fusible calculus. It is in the possession of Trinity College. A calculus is also noticed from the intestines of a hare: it is composed of vegetable matter and the phosphates.—(*Journal of Sciences.*)

Size and Shape of the Globules of Blood in different Animals.

A number of very interesting results have recently been obtained by J. L. Prevost, M.D. and J. A. Dumas, respecting the form of the globules of blood of different animals, and the effects of transfusing the blood of one animal into another. The following are their measures of the diameters of the globules :

Man, Dog, Rabbit, Pig, Hedgehog,	}	$\frac{1}{3750}$ of an English inch.
Guinea Pig, Muscarden, - - -		
Ass - - - - -	-	$\frac{1}{4175}$
Cat, Grey Mouse, White Mouse,	-	$\frac{1}{4275}$
Sheep, Horse, Mule, Ox - -	-	$\frac{1}{5000}$
Chamois, Stag - - - - -	-	$\frac{1}{5450}$
She-Goat - - - - -	-	$\frac{1}{7200}$

But, while the globules of blood in different animals vary in size, they vary also in form. In the mammalia they are all spherical, while in birds they are elliptical, and vary only in the lengths of their greater axes. They are likewise elliptical in all cold-blooded animals. They found, also, that the colourless globule, which exists in the centre of the particles of blood, has the constant diameter of $\frac{1}{7500}$ th of an inch in all animals, and whatever be the form of the globule which contains it.

In their experiments on the transfusion of blood, they obtained many interesting results. When animals were bled till they fainted, they died when they were left alone, or when water or serum of blood, at the temperature of 100 Fahr. was injected into their veins. If, on the contrary, the blood of an animal of the same species was injected, every portion of the blood thrown in reanimated the exhausted animal; and, when it had received as much as it lost, it began to breathe freely, to take food, and was finally restored to perfect health. When the injected blood was from an animal of a different species, but whose globules had the same form, though a different size, the animal was only partially relieved, and could seldom be kept alive for more than six days, the animal heat diminishing with remarkable rapidity. When the blood of an animal with spherical globules is injected into a bird, it usually dies under the most violent nervous affections, as if under the influence of the most intense poison; and this takes place even when only a small quantity of blood has been lost. In a great number of cases, cats and rabbits were restored for some days by the injection of the blood of cows and sheep, even when the injection of the blood was not made till twelve or even twenty-four hours after the blood was extracted from the latter. The blood was

kept in a fluid state in a cool place, either by taking away a certain quantity of fibrine, or adding 1000th part of caustic soda. When the blood of the sheep was injected into ducks, they died after rapid and strong convulsions.'—(*Bibl. Univers.*)

Communication between the Auricles of the Heart.

A preparation, in the possession of Fouquire, shows the existence of a free communication between the auricles, without having given rise to blueness of the skin; the patient having laboured under the usual symptoms of aneurism. The same practitioner has likewise shown that the *blue disease* may exist without any such communication. Thus he concludes that, although the organic lesion is often co-existent with this affection, they are not essentially dependant on each other.'

INTELLIGENCE.

Adhesive Plaster.

[Extract of a letter to one of the Editors.]

I SEND you with this a specimen of Adhesive plaster, used by us for a year or two past and made by the dispensatory formula for plaster of semivitrefied oxide of lead, except that we substitute linseed or painters oil for olive oil.

It causes no irritation, adheres as readily to a moist as a dry surface and we have found it to resist the continued application of an evaporating cloth.

My partner, Dr Mather, informs me he uses a patch of silk spread with this plaster instead of compress and bandage, to secure the puncture after venesection.

If you please you will communicate this to the editors of the New-England Journal, though we do not claim the merit of the discovery, nor do we know to whom it belongs.

Yours, &c. J. H. FLINT.

Northampton, Mass. Dec. 4th, 1822.

Case of the successful use of the 'Cold Affusion,' in an affection of the Brain. By SAMUEL WEBBER, M.D.

[Communicated for the New England Journal of Medicine and Surgery.]

[The following communication was received too late for insertion in the first part of the number.] ED.

MAY 28. About ten in the evening, I was called to visit Nathan Dane, a robust young man living with a farmer in this place, who, the messenger said, was suddenly taken crazy. Upon inquiring into the particulars I learned that he had been at work making a fence under the west side of a hill, exposed to the full influence of the sun during the afternoon, which had been very warm for the season of the year. He had come home at night apparently very well, eaten his supper and soon after gone to bed as usual. Two young boys who slept in the same room, came down in great alarm about an hour after, saying that Nathan was dying. Some of the family went up and found him in a state of great agitation, wandering round the room in the dark, without any apparent object, tossing about the articles of furniture, not comprehending or not heeding when spoken to, and perfectly intractable when they endeavoured to get him to go to bed again, so that they were obliged to employ force. After waiting for an hour or two in hopes that he would become calm and go to sleep, they sent for me.

Upon my arrival at the place I found the patient on the bed, where he was held by two men, struggling violently to rise. His face was flushed, his eyes wild and sparkling, the skin generally hot and dry, and the pulse hard and full, and above 100 in a minute. When spoken to he made no reply, and indeed did not, I believe, speak at all, or utter any sound, though his endeavours to escape from those that held him, were violent and incessant. From appearances I judged it to be a case of Phrenitis, and as venesection was plainly indicated, I performed it, though not without great difficulty on account of the violent resistance of the patient. About sixteen ounces of blood being taken away from a large orifice, he became more calm, but it was only for a short time, as his fury soon returned and seemed to be greatly exasperated by a recollection of the operation, and the sight of some blood that had been sprinkled upon the bed clothes during his struggling. Observing this, I judged it best to have recourse to other means of diminishing excitement, instead of repeating the bleeding. For this purpose I gave him, in divided doses and at short intervals, about

4 grains of Tartarized Antimony, which however produced no sensible effect. I then resolved to try the affusion of cold water. The patient was placed in a large tub and there held fast while I suddenly dashed over his head the contents of two large copper pails, containing from three to four buckets of cold spring water. The shock was very great, and in spite of all the endeavours of those who held him, to retain him in his seat, he burst from their hold, and it was only by a great exertion of force that we again placed him in the tub. When this was done I poured upon his head another large pailful of water, not at once as before, but in a large and continued stream so that the emptying of the pail took about thirty seconds, just at the conclusion of the operation, by a prodigious effort of strength he again broke from those who held him and leaped out of the tub, but immediately became calm and appeared perfectly rational. He was then wiped dry and put into a clean bed, and as he said that he felt sleepy, I left him, having first applied a large blister upon the nape of the neck, and directed the attendants to send for me in case the delirium should return. Calling to see him the next morning, I found that the antimony had operated as an emetic soon after I left him, and that he had slept quietly the rest of the night. The only remaining symptoms of his disorder were a slight pain in the head and a little frequency of the pulse, which gave away to a cathartic and a few spoonfuls of an antimonial solution; and in three days he was well enough to resume his usual labour. He had no recollection of any thing that had occurred from the time of his going to bed till the pouring on of the last pailful of water, the feeling of which he represented as very distressing at the time, though the consequent sensations were grateful.

Charlestown, N. H. 1822.

OBITUARY.

DIED in this city on the 11th day of December, 1822, ISAAC RAND, M.D. in the eightieth year of his age. This venerable member of our profession continued to attend the sick until within a few months before his death; but his health had been failing for two or three years past under a *dilatation of the heart*. About ten years since he suffered an injury of his knee, by which he has been prevented from taking active exercise. To this want of exercise; perhaps, may, in part at least, be attributed the disease of his heart: for his constitution was firm, notwithstanding his age; his frame was good, his habits very temperate and his mind cheerful; so that had no local disease occurred, his vigour might have been maintained for many years. He sometimes complained of

his memory like other old men; but it was a faculty for which he was remarkable, and compared with that of other men, it was strong in his old age.

Dr Rand's whole life and mind may be said to have been devoted to his professional pursuits and engagements. He was the son of a respectable physician in Charlestown. and when a boy determined to pursue the study of medicine. His eagerness on this subject led him to read some medical books while at college. He was graduated A. B. at Cambridge in the year 1761, and became a pupil first to his father and afterwards to the late excellent Dr Lloyd of this town. With this gentleman, who was only ten or twelve years older than himself, he was ever afterwards on terms of most friendly intimacy. Dr R. was always held in high esteem and respect among his fellow-citizens; but never received any public marks of distinction, because he never seemed willing to engage in any business other than that of his profession. To qualify him for the responsible duties of this profession, he was not only industrious in his studies during his pupillage; but, considering himself a pupil during his whole life, he always continued to devote a portion of his time to medical reading, and employed all the powers of his mind in observing and weighing every circumstance, which could influence his practice.

Dr Rand was fond of speculative inquiries on medical subjects; but was never wedded to the system of any school. Taking from each whatever appeared to him well supported, or even ingenious, he kept it in his mind to be tested by subsequent observation and experience. Hence he was neither a Sangrado, nor a Brunonian. He was not afraid to make free evacuations either by the lancet or by other means; nor did he persist in them and refuse the use of cordials and tonics, when the necessity of these was duly indicated. He did not look to the shop only as the storehouse of remedies, but studied the effects of diet and regimen, and regarded these as proper subjects of regulation by the physician, as well as the articles commonly called medicines.

Dr Rand was held in respect among his brethren and was frequently called upon by them as a consulting physician. He was a Fellow of the Massachusetts Medical Society, when that society was first instituted in 1781; and for several years President of the same. He was also a corresponding member of the London Medical Society. Urbane in his manners, his life was marked by integrity and uprightness, and he died, as he had lived, under a firm faith in the Christian religion.

LITERARY NOTICE.

Our readers will see, by the Prospectus of our publishers annexed to this number, that they are about to reprint *Good's Study of Medicine*, and *Nosology*. We heartily wish they may find sufficient encouragement for these valuable works.

The New-England Journal

OF

MEDICINE AND SURGERY.

Vol. XII.

APRIL, 1823.

No. II.

REMARKS ON THE USE OF THEORIES IN MEDICINE.

An address to the Boylston Medical Society of Harvard University, at the Annual Meeting in November 1822. By the President of the Society. E. HALE, JR. M. D.

[Communicated for the New-England Journal of Medicine and Surgery.]

WE meet in this society as students engaged in the acquisition of medical science. Although some of us have been several years in this study, and others have but recently entered upon it; although some have added professional practice to professional inquiries, while others look forward to practice as the future result of their scientific attainments, yet we all come here equally as students, alike interested in the acquisition of knowledge. He who is disposed to lay aside the character of a student when he assumes that of a practitioner in medicine, cannot have learned the magnitude nor the importance of the objects which his profession embraces. The field is indeed extensive enough to employ the most diligent enquirer; and the subjects of investigation possess sufficient interest to satisfy the most scrupulous, that his attention is not bestowed on objects unworthy of his regard.

The obstacles which impede the progress of the student in medicine, are in many respects, the same in every part of his course; and they are to be surmounted by the same means. It may not be amiss therefore at this time, as we return again to the performance of our associated duties to take a view of some of these obstacles as they are affected by the state of the profession in this country, and to inquire by what means we may avoid their influence. The effect of our society is not confined to the know-

ledge directly obtained and communicated in the examination of the questions which are here discussed. Nor ought the ambition of its members to be limited to objects so temporary. So far as a spirit of inquiry is promoted by our discussions, so far as a disposition is excited to go beyond that beaten path of professional study, which is trodden almost mechanically,—so far do we contribute our aid in raising the standard of professional science among us.

The first of the difficulties which embarrass the medical student arises from the diversity he meets with in the explanations by different men of the same phenomena. He begins by studying the organization of the human body, and the functions of the several parts. He has only gone through with one author and begins to compare his observations with those of another, when he finds that much of what he has learned is condemned as incorrect, or ridiculed as visionary. He has not yet acquired the art of separating the statements of facts from the inferences which are drawn from them, and the whole science appears obscured by uncertainty and contradiction.

This is an evil, which within a short period of time, has borne much more heavily upon those who were initiated into our profession than it does at present; especially upon those who began their studies at a distance from the advantages, such as we here enjoy. The writers of the last century contain so much of accurate observation, that they must continue to be read as long as the science of medicine endures. But many of their theoretical speculations have been wholly superseded by the discoveries of modern days. Let a student acquire his knowledge of the human frame from the works of those great men (and it is but a short time since they were some of the first books put into the hands of students) and he would learn that man was a skilful piece of mechanism, with its levers and its fulcra, its pulleys and its tubes, and its capillary attractions:—all cold and mechanical, as if the Almighty Creator had never breathed into him the breath of life.

At another period he would have been taught that all the operations of the human body are carried on by chemical actions; that we ‘live and move and have our being’ by the agency of fire, and the other elements; by fermentation &c.;—that man in short, is merely a chemical laboratory, in which all the multiplied animal solids and fluids are prepared.

There is much for such a man to unlearn, when he comes to perceive the effect of the vital properties, controlling all the powers of the animal economy; that though mechanical agents are employed, they are but as the instruments of more exalted

powers; that chemical affinities are not permitted to act, except as they are subjected to the same powers, which modify or control them at will.

But it is not by the exploded theories of former generations alone, that the student is bewildered and perplexed. Almost every year brings with it some new theory in some department of our profession; and almost every book he reads teaches him some new doctrine, or gives him a different explanation of some of the phenomena of human life. Nor is this source of embarrassment confined to the beginner in the profession. Let any physician, however enlarged his views or extensive his knowledge, lay aside all professional study for a few years, and he will find that new doctrines have sprung up, and that new terms have taken the place of the old, to such an extent that both the principles and the language of science have become in a great measure unintelligible to him.

Besides, although we are ready enough to pride ourselves on the inductive philosophy of the age, it cannot be denied that speculation has but too often usurped the place of observation. It is no easy task for the reader, especially if he be but a beginner in the study, to distinguish the one from the other,—to separate what is the legitimate result of inquiry, or fair deduction from established facts, from the brilliant effusions of a fruitful imagination. Indeed the author himself is not sure to be aware how often he wanders from the one to the other. In a science where so much remains to be still explored, and where constant additions are making to the stock of our knowledge, it cannot be otherwise than that the theories of many parts of it will frequently be changed, sometimes in consequence of actual discoveries which overthrow established systems, and sometimes by the ingenious speculations of those whose ingenuity exceeds their observation. While too, so much remains to be learned, and so many points remain unsettled in medical science, it is not surprising that the conjectures of different men should vary considerably concerning them. These conjectures are too often blended in the mind of the student with the statements of what is better known, so as to give him the impression of uncertainty in regard to the whole.

Is it then true that medical theories have served only to mislead the student, to perplex and embarrass him? It is far otherwise: although such a charge has often been brought against our profession. There is a class of writers from the distinguished and visionary John Brown, who thought himself able to overthrow every existing system, and establish his own upon their ruins, down to the most miserable writer of a newspaper para-

graph on hydrophobia or yellow fever, who have made the uncertainty of medical science, and the uselessness of medical theories the constant theme of declamation. But where is the man of practice, who is accustomed to look upon the human frame as it actually appears both in health and sickness, and to describe diseases as they exhibit themselves to the physician at the bedside of the patient, who is insensible to the value of the theoretical parts of our science?

There are indeed writers, and such there have been in all periods of medical history, who have given to the world the speculations of their own fancy, as theories in medical science; and no class of men have been more likely to do so than those who begin by decrying all theory. No man perhaps has ever been more violent in denouncing all science in medicine as unstable and uncertain than John Brown; and no one has devised a system more completely speculative, or so little founded on actual observation of the phenomena of life as his. So it is with writers at the present day. The outcries against medical theory are made a sort of prelude to some new and visionary hypothesis.

It cannot be denied however, that to a considerable extent, an impression does exist among those who are little conversant with the true state of knowledge in our profession, that there is a peculiar want of certainty in it, beyond that of other professions; that hypothesis and conjecture have taken the place which belongs to observation and induction. The discoveries which in the present age have been made in some of the collateral branches of science, particularly in Chemistry, have indeed not a little modified explanations of many of the phenomena of the living body, and thus have given some appearance of support to this opinion. But are the discoveries which are made in science to be regarded as unsettling the foundations of all our knowledge, because they make it appear that some of the opinions of former times were incorrect? In no science have so great and such frequent changes been made by the progress of discovery as in Chemistry; yet there never has been a time, when chemistry has held so high a rank among the sciences, or been regarded with so much confidence, as at the present day.

Let us examine this matter a little further, and see what are the advantages of theories in medicine, and the evils which they are liable to produce.

Every science which embraces a great variety of facts and observations, necessarily requires a system of arrangement and classification, in order that the more important principles of the science may be retained in the mind. It is not the knowledge of individual facts, which constitutes the knowledge of science.

The different parts must be brought together, and associated together in the mind, either by the arbitrary distinctions of an artificial system, as in botany, mineralogy, &c. or, by the analogies of the several parts in respect to their character or properties, as in physiology and the kindred sciences.

In none of the sciences is such arrangement more necessary than in medicine. The range of knowledge included in the education of a physician is exceedingly extensive. It were a hopeless task for any man to attempt to store in his memory the immense number and variety of individual facts, which the profession embraces; and if accomplished, it were a useless task. For not only is a system of arrangement necessary for the purpose of acquiring the requisite knowledge, but it is equally so to render that knowledge of any practical utility when acquired.

What other system can be more convenient in our profession, or more useful, nay, what other is in any degree practicable, than to associate together in description and discussion, such parts as are connected and dependent on each other, in nature and practice? The human body, for instance, must be studied not solely, nor principally, by an anatomical description of its several parts, but by their functions, and the relations they bear to each other and to the whole animal economy. *Materia medica* is learned, not from a mere description of the physical properties of medicines, but by their operation on the living system, both in health and disease.

By far the most important parts of medical theory are those which explain the functions of the several organs of the human body. What but a lifeless skeleton would be our knowledge of the human frame, if we were confined to a mere description of the several parts? It is the theory of their functions which brings the several organs together into one beautiful system, into a complete animated being. And this theory is as much the result of induction, as in any other science whatever. Our knowledge of the circulation of the blood, is an inference derived solely from an acquaintance with the structure and functions of the heart and vascular system. It is in fact a medical theory, discovered and demonstrated by the immortal Harvey, which has continued unchanged from his time until the present day, and which doubtless will continue unchanged, so long as any vestige of science remains on earth.

Until a much later period than the time of Harvey, we had no correct theory of respiration. It was well known that the blood was carried into the lungs,—that there it was exposed to the influence of the atmospherical air, which was brought there for the purpose of meeting it,—and that then it returned to the heart.

But what purpose was accomplished by their meeting, or what change was effected by their reciprocal influence, was unknown. The discoveries of modern chemistry have supplied the deficiency, and have given us a theory of respiration as satisfactory, and probably as permanent, as that of the circulation of the blood.

We might extend our examples into every department of medical science, and the result would every where be the same. We should every where find that medical theories, properly speaking, are but the inferences and conclusions drawn from established facts and observations. They constitute in truth the very philosophy of medicine, without which we should have a mere collection of disconnected materials. Without medical theories therefore, medical science could not exist.

But there are many parts of the animal system, with the functions of which we are still but imperfectly acquainted ; and there are many other phenomena connected with medical science, which we do not profess to be able fully to explain. These must be described, so far as their operations are understood, and there must also be some system of arrangement adopted in regard to them. It is therefore often useful in the absence of fully established theories, to supply their place by such as are in some measure conjectural.

These conjectural theories, or hypotheses (as they ought to be called) serve to fill the chasms which are left in science by the imperfection of human knowledge ; and they ought in no degree to be confounded with those theories in medicine, which are sufficiently founded on well established facts. They are but occasional and temporary additions to the more solid structure, which are to be removed as fast as materials are obtained to complete it. They are not however useless ; nor is their utility limited to their effect in concealing the defects of an unfinished work.

The speculations and conjectures and reasonings of ingenious men, prepare the way for actual discoveries in science. It is not by chance that knowledge is obtained. Nor is it by casual experiments that science is advanced. It is rather by examining theories which are first founded upon analogy and probability, and bringing them to the test of experiment, that we are to ascertain what is to be retained and what to be rejected. Such has always been the progress of science, and such it must continue to be.

There are therefore two distinct classes of theories in medicine, differing essentially from each other. The first consists of inductions from established principles ; and they are as permanent in their nature, and as little liable to change, as the principles of any science whatever. It is these that constitute

the science of medicine. The second class are of a less permanent nature. They vary exceedingly in their character,—from those which rest upon a high degree of probability, down to the wildest vagaries of imagination which disgrace medical science; while they all agree in wanting that kind of certainty which belongs to settled principles.

Theories of this sort, are of course subject to frequent changes, with the varying opinions of different writers. In the progress of science, as new principles become settled, theories of this class are often abandoned; or new observations prove them to be well founded, and transfer them to the other class. It is this circumstance chiefly, which has given such an appearance of changeableness to medical science. Yet these fluctuating opinions ought not to be regarded as essential parts of the science, nor ought they to bring reproach upon those parts which are stable and permanent. They are in their nature distinct, and it is the duty of every student, and every writer, to separate what is only probable, or what is imaginary, from what is proved to be true.

The difficulty to the student from the confusion of medical theories, arises from his liability to overlook this distinction between different theories. It must be confessed that in many instances, our professional writers have not been sufficiently careful to draw the line of distinction. His fondness for a favourite theory has led many an author beyond the limits of established principles, before he was aware of it. By the well informed student, who is accustomed to diligent investigation, this may be easily detected; but the beginner and the less careful student is led astray and confused, by a multitude of inconsistent hypotheses.

There is indeed often room for much difference of opinion in respect to the sufficiency of the evidence upon which the correctness of different theories may rest. What one man may regard as sufficient to establish an opinion upon a firm basis, may seem to another altogether unsatisfactory. Hence we have frequent discussions, and too often angry disputes on medical questions; and these only add to the embarrassment of the student.

He who would establish himself in correct theories, must learn habitually to draw the line between the opinions of the author which he studies, and the observations upon which they are founded. Let the latter be carefully stored in his mind; and let the value of the former be estimated, not by their ingenuity, or their simplicity, or any other intrinsic quality, but by the stability of the foundation on which they rest. To acquire the habit of making such a selection, he should take care to read the works

in which the observations were originally made. Let him trace the course of discovery, before it has become involved in theoretical speculations.

There are many of the older writers, whose speculative opinions have many of them been superseded by modern discoveries, which nevertheless contain a large fund of valuable instruction. It is too much the custom of the present times to neglect these venerable works, as if modern science had destroyed their observations with their hypotheses. The great learning of many of those authors, and the correctness of their descriptions in matters of fact, render them worthy of more attention. Indeed, although they are not well suited to commence the study of the profession with, to a young man who has made some progress in it, they are an exceedingly useful study, independently of the knowledge which is directly obtained from them. As many of their speculative theories are superseded by modern improvements in science, the student of course does not rely upon their works as a whole, but selects as he reads, such parts as are the result of observation, from such as are purely speculative. And thus he acquires a habit of discrimination, which may be applied with great benefit to other and more modern works.

It is important to the student who would not be led astray by theoretical speculations, that he pursue his investigations beyond the labours of compilers of systems of medicine and guides to practice. However useful these may be in their place, as assistants of the lowest order, they are not the sources from which medical science is to be learned. It is from treatises on the several parts of the profession, that the most valuable knowledge is in general to be obtained. The description of the functions and the diseases of particular organs, or the history and treatment of particular diseases, are examples of the class of writings to which I allude. It is in works of this kind, which are the fruit of careful observation, independent of general speculative systems, that the student must explore the depths of science.

This leads me to speak of another obstacle which too often impedes the progress of medical students: to wit, the low standard of professional learning in this country.

It is a remark quoted I think by Johnson, that the medical profession in his time contained more learning than either of the other professions. How far is this from being the case among us! It is most humiliating to acknowledge, but it cannot be denied, that physicians as a body are not reading men. Except elementary books for the use of pupils in medicine, how few medical books are published in this country! And still smaller is the number of those, of which a sufficient number is sold to re-

pay the expense of publication. There is no such thing as a general disposition to cultivate science among us.

There is no other mode of acquiring a competent knowledge of the theory of medicine and its adaptation to practice, than by diligent, unremitting study. With all the advantages which a school of medicine can furnish, and with all the instructions of professors, distinguished for ability and zeal, the man who enters upon the practice of medicine without a diligent study of books, is little better than an empirick. "Nocturna manu versate, versate diurna" must be peculiarly the maxim of every medical student, in every period of his course, from the commencement of his preparatory studies to the last moment of his professional life.

The gentlemen of this society will permit one who has been a member of the society from its organization almost twelve years ago, to congratulate them upon its successful operation in promoting the design of its institution. No institution perhaps can be better calculated to counteract the influence of the obstacles of which we have now spoken. By discussing together the questions which arise in the course of our inquiries and investigations, we obtain the means of distinguishing the true theories of our profession from such as are unfounded; at the same time that we are excited to more diligent application by the interest which the discussion furnishes.

The history of this society shows that although it has not been what a zealous co-operation of the whole medical class might have made it, its favourable influence has not been of trifling importance. Whoever will compare the catalogue of this society with that of the Medical College, will find that those who have been enrolled among our members, have not been the least distinguished of those who have gone out from this school. From the time of the amiable, virtuous, and lamented Burge, who first filled this chair as President of the society, to the present day, we might always find the most zealous in the pursuit of science in the number of our associates. I trust that the diligence and application of its present and future members will make it more and more an honourable distinction to belong to it.

Answer to Dr HAZELTINE'S Communication in the last Number of the Medical Journal.

[By the Editors.]

AT page 228 of the 11th volume of this Journal, the reader will find a communication by Dr Hazeltine, containing some strictures upon certain parts of our Review of the Pharmacopœia

of the United States. To this paper was attached a note by the Editors, in which they gave their reasons for the belief, that the formulæ for the preparation of the calomel pill, and the compound pill of sulphate of iron, were not founded upon correct chemical principles. This note called forth a reply from Dr H. in which he controverted our opinion, and maintained that it was founded in error. Our object is now to examine the arguments by which he has attempted this, and likewise to answer certain questions proposed by our correspondent.

The ground of discussion is this, whether calomel, and green sulphate of iron, when made into a mass with soap and water, as directed by the Pharmacopœia, will undergo decomposition? We affirmed that they would, and Dr Hazeltine that they would not be decomposed. In order to prove his position, he denies that calomel prepared as above, experiences any change in its physical, chemical, or medicinal properties, and in confirmation of his opinion, sends us some of his own pills. We duly estimate the trouble which he has taken to furnish us with some of his own composition, and prepared according to his own formula, but at the same time, are under the necessity of giving him distinctly to understand, that we can have nothing to do with them. Our observations were made not on his pills, but on those of the Pharmacopœia, and, after saying this, it will be evident, by comparing the different processes for their formation, that we take away the force of the greater part of his reasoning.

We shall first consider the Doctor's formula.* 'The calomel pill which I have employed is prepared as follows, viz. calomel, three parts, castile soap, one part, common water sufficient, with *much beating* of the ingredients in a mortar, to reduce them to a proper consistence for making into pills. The soap ought to be shaved with a knife, and broken in a mortar, as fine as possible, and then to be triturated together with the calomel, *ad libitum*, before the water is added. But little water is requisite to give the mass a proper consistence; and it is best to introduce it by little and little, beating diligently in the mean time and afterwards, till the mass becomes perfectly homogeneous and uniform. Then, with a little flour, to prevent the mass from adhering to the fingers, it may be made into pills.'—'They ought to be exposed to the air a few days, that they may dry before they are put into bottles or boxes.' Now turn to the formula of the Pharmacopœia.

Take of sub-muriate of mercury, half a drachm, castile soap, a scruple; with water form a mass, and divide into thirty pills.

Let any apothecary make up a mass according to this formu-

* N. E. Journal of Medicine, Vol. xii. p. 229.

la; we believe he will think it unnecessary to triturate the materials *ad libitum*, before adding the water; nor when that liquid is used, can it be supposed he will take any other precaution than that of not supplying too large a quantity. He will probably add, for there is nothing in the formula to induce him to do otherwise, just so much water as may be required to form the mass easily, and give it a degree of ductility sufficient to allow of its being rolled into pills. Dr Hazeltine's pill differs from this not only in containing less soap and probably water, but likewise in the mode of uniting them; hence when he affirms that decomposition will not take place in that of the Pharmacopœia, because he has perceived no change in his own, he mistakes the subject of discussion, and reasons upon a topic of which it is evident he is ignorant.

We said in our note that the calomel pill, and the compound pill of sulphate of iron, prepared according to the Pharmacopœia, would both suffer decomposition in consequence of the presence of soda. The evidence given of it, was a change of colour. We say so again. The calomel pill made with white soap acquires in a short time a tinge of blue; and when recently formed with soap which has been for some time exposed to the air, gives out carbonic acid. Dr Hazeltine denies this, because such a change is not perceptible in *his* pill, which is *not* prepared according to the formula of the Pharmacopœia; and afterwards enters into a long discussion about chemical action, when the question might have been settled in his mind at once by repeating our experiments, or inventing some for himself. With regard to the compound pill of sulphate of iron, the changes that take place during its formation, must of course be disguised by the presence of the rhubarb; but if, as was said in the note, a mass be formed of white soap, sulphate of iron, and water, (and in relation to this question, the experiment is a fair one) no man who has the slightest knowledge of chemistry, or even the use of his eyes, can doubt for a moment that chemical decomposition is going on; for the mass grows brown during the trituration of the materials, and in the course of a few hours, acquires the deep tinge of the peroxide of iron. The sulphate of iron usually met with in commerce, is a mixture of the red and green sulphates, in which the latter very considerably predominates. Such, it appears to us, must necessarily be the result in all cases in which masses, of the kind above mentioned, are made up by an apothecary from the directions given in the Pharmacopœia.

In the fourth article of Dr Hazeltine's last paper, he has magnified an opinion expressed by us, into an importance, which borders upon the ludicrous. We said, 'that we saw no good rea-

son, why, when a mixture of calomel and soap was taken into the stomach, the former should not be decomposed ;' an opinion, which appears so heterodox to him, that he has controverted it with a degree of zeal and animation which we neither feel nor are disposed to imitate. The whole paragraph is so *unique*, and exhibits in so remarkable a manner the Doctor's process of reasoning, that we beg leave to call the attention of the reader to it. In order to prove that we have no reason for inferring the decomposition above mentioned, he goes on to say, in the language of an English physician, that 'sometimes a combination of the tartrate of antimony with the sulphate of magnesia, or the pulvis antimonialis with calomel, will rapidly reduce the heat and quickness of the pulse, by acting as an emetic and purgative at the same time.' He has known physicians who are in the habit of giving calomel and emetic tartar, with a view to their emetico-cathartic effects without the least suspicion of a deterioration of either, from a chemical decomposition. Dr H. himself has by him pills of sulphate of copper, sub-muriate of quicksilver, and crumb of bread, which it seems have undergone no change in the course of two years ; and what according to him is still more remarkable, pills of sulphate of iron, super-carbonate of pot-ash and myrrh, which have experienced no alteration for months. From what has been said, the inference is clear, that because we expressed an opinion in favour of chemical decomposition in one instance, he would make the reader suppose it to be our belief, that compounded medicines taken into the stomach in all cases, must not only be decomposed, but even rendered inert, and this too, whether they are capable of acting upon each other chemically or not, out of the body ; for he has jumbled together examples, which have no more to do with what we said, than Dr H. has to do with chemistry. But in order to turn the argument completely against himself, the author proceeds to observe, that we may possibly object to the examples, as not being fair specimens, because no alkaline salt is employed in their composition, and he therefore proposes another, viz. the myrrh mixture. "Take another example ; the anti-hectic, or anti-septic mixture of Dr Griffith's, composed of myrrh, sal martis, and sal tartar, the myrrh mixture as it is commonly called. This was long since pronounced an 'unchemical' preparation ; but however that may be, some of the most eminent and best educated physicians in the United States, and some of them certainly inferior to none in their knowledge of chemistry, have for a long time continued to prepare, prescribe, and employ it.' The reader will here perceive, that Dr H. has changed his ground ; he began by denying the decomposition of compound medicines in the

stomach, and he now denies that it takes place when alkaline and metallic salts in solution are mixed with each other, out of the body.' The process of reasoning, by which he is led to this conclusion, we shall soon examine. In the mean time, let us listen to what he has further to say on this subject. 'Other, and numerous examples, gentlemen, might be produced, in which the metallic, alkaline, and earthy salts, are directed to be mixed together in a solid form, with gums, resins, gum-resins, and even with hard soap, (*and we presume he meant to add, water,*) by the best professional authority, without a suspicion of a chemical decomposition taking place in any of those articles.' Now, if the reader will attend to this reasoning, he will perceive that the whole of it is founded upon the erroneous notion, that if compounded bodies are decomposed, their products must be inert. He makes use of the myrrh mixture, because it possesses some medicinal power, to prove, that in compounding it, no decomposition of its ingredients takes place. His mode of reasoning is simply this; compounded medicines that decompose each other, lose their active properties; Griffith's myrrh mixture is an active medicine; ergo, the ingredients of that mixture, viz. myrrh, sal martis, and sal tartar, do not decompose each other! Now, before demonstrating to Dr H. that decomposition actually does happen, we would ask, who denies that this mixture does possess some medicinal efficacy? Not the Editors of this journal; on the contrary they believe it to be a preparation of some merit. The fact is, if a pharmaceutical preparation be active and produce certain and well known effects in the living system, the object of the physician is obtained, and, in this point of view, it is of little consequence to him, whether chemical action took place or not, during its formation. But Dr Hazeltine ought to know, and we presume he does know, that it is some consequence that a physician should not be deceived, nor believe that he is administering one medicine while he is employing another. We now say to him, that if in using the myrrh mixture he imagines he is giving a solution of sulphate of iron, he is egregiously mistaken. If a solution of 25 grains of sub-carbonate of potash in a jill of rose-water, be added to a similar solution of 20 grains of sulphate of iron, we presume even Dr H. himself will be ready to acknowledge, that carbonate of iron will be precipitated; if a drachm of sugar be added to the half-pint, he will not probably deny, that it will be dissolved without producing any effect upon the water or what it contains; nor will any change happen on the addition of half a fluid ounce of spirit of lavender. Finally, if a drachm of finely powdered myrrh be introduced, and the whole be shaken together, we shall have, notwithstanding what

Dr H. may think, to all intents and purposes, the myrrh mixture of the national Pharmacopœia. Griffith's mixture then will consist of half a pint of rose water and half a fluid ounce of spirit of lavender, holding in solution, sugar, sulphate of potash, undecomposed carbonate of potash, and a little myrrh probably, and in suspension myrrh and carbonate of iron. We have said undecomposed carbonate of potash, and for the satisfaction of Dr H. we shall now show him, in order that his ideas respecting this mixture may in future be more definite and accurate, that the quantity of subcarbonate of potash, directed by the pharmacopœia, is unnecessarily large. An hundred parts of sulphate of iron in its crystallized state contain 27·40 of sulphuric acid, 27·30 of protoxide of iron, and 45·30 of water; now $100 : 27·40 :: 20 : 5·48$, the quantity of acid contained in 20 grs as ordered by the Pharmacopœia. Sub-carbonate of potash is composed of 70 of potash and 30 of carbonic acid, consequently $100 : 70 :: 25 : 17·50$, the amount of potash in 25 grs of the salt. Sulphate of potash consists of 54·28 of potash, and 45·72 of acid; whence it follows, that the 5·48 grs of acid in 20 grs of the sulphate of iron unite with 6·28 grs of potash to form 11·76 of sulphate of potash; 5·46 grs of oxide of iron will be separated; 2·68 grs of carbonic acid will be disengaged, which uniting form 8·14 grs of carbonate of iron and, 16·02 grs of undecomposed sub-carbonate, will remain dissolved in the liquid. These calculations are made upon the presumption that the sub-carbonate used is dry.

Dr Hazeltine continues—'You seem to suppose gentlemen, that because you are certain that Castile or Windsor soap and calomel, with water, combined in the form of pills, will under certain circumstances of the atmosphere, as it respects heat and moisture, undergo decomposition, the same articles will also become decomposed under circumstances in those respects altogether different.' By the Doctor's leave, we take the liberty to say that we have supposed no such thing. If he will turn to our note, he will there find nothing said about certain conditions or circumstances of the atmosphere, as respects heat and moisture. We merely stated as fact that soap, calomel, and water mixed in the proportions to form the calomel pill of the Pharmacopœia, would be decomposed, at least the two first, in the course of a few days; and the compound pill of sulphate of iron in a much shorter time; implying of course that the experiments were made at the common temperature of the air. It is Dr Hazeltine himself who speaks of the influence of these 'circumstances,' in his first paper on the subject, and why he should have attributed the remarks to us we are at a loss to determine.

Dr H. sums up his paper by asking the solution of three questions, which he proposes. We shall do this very willingly, though we cannot see why he, who is so much more interested than we are in this discussion, should throw upon others the burthen which he ought to bear on his own shoulders. Possibly there may be a sly design lurking under this request, to oblige us in this way to unveil, as he supposes, our own errors. Whatever the motive may be we shall be happy to oblige so good a contributor to the Journal, and as he has heretofore communicated instruction to us, we hope we have now the opportunity to return the compliment. The questions are as follows:

1. If the soda contained in three parts of Castile soap, with the 'aid' of nine parts of rhubarb be insufficient to decompose four parts of sulphate of iron, what portion of THREE parts of calomel will the same salt, contained in ONE or even TWO parts of Castile soap, decompose? * or, 2d. has the soda in the soap a greater affinity for the muriatic acid of the calomel, than for the sulphuric acid of the sulphate of iron? or again, 3d. What quantity of soda is necessary to decompose any given quantity of calomel?

Before answering these questions, we shall advert to the opinion we expressed that the soda in the soap employed in the compound pill of sulphate of iron was not sufficient to decompose the whole of the sulphate, which we shall now prove. The formula directs 40 grains of the sulphate and 30 grains of soap. Now 40 grains of the crystallized contain 21.88 grains of the dry sulphate. Hence as $54.70 : 27.40 :: 21.88 : 10.96$, the quantity of acid in 21.88 grains of the dry sulphate, or 40 grains of the crystallized. Sulphate of soda consists of 44 of soda, and 56 of acid, exclusive of its water; and the quantity of soda in 30 grains of soap amounts to 2.40 grains. Now $44 : 56 :: 2.40 : 3$ very nearly. Hence the soda decomposes 5.98 grains of the 21.88 grains of sulphate, forms 5.40 of sulphate of soda, and disengages 2.98 of protoxide of iron. One quarter part therefore of the sulphate of iron may be decomposed.—To return to the questions. 1. We assume with Dr Hazeltine, supposing calomel to be a real muriate, that 100 parts will be composed of 12 of muriatic acid and 88 of protoxide of mercury, and consequently 30 grains will contain 3.60 grains of muriatic acid. Muriate of soda contains 46 of muriatic acid, and 54 of soda; and the amount of soda in a scruple of soap is 1.60 grains. From these data we deduce that 1.60 of soda combine with 1.36 of muriatic acid to form 2.96 of muriate of soda; and as $12 : 88 :$

* We take the liberty to inform Dr Hazeltine that soda is not a salt but an oxide.

1·36 : 9·97, it follows that 1·36 of muriatic acid unite with 9·97 of protoxide of mercury to form 11·33 of calomel. The answer to this question therefore is, that more than *one* part out of *three* of calomel may be decomposed by the soda contained in *two* parts of soap.

This question if it have any meaning at all in it, is founded upon a remark made by us with regard to the pill of sulphate of iron, viz. that the soda in the soap was not in sufficient quantity to decompose the whole of the sulphate. As this remark was not repeated when speaking of the pill of calomel, Dr Hazeltine seems to have taken it for granted that we really believed the decomposition to be complete. Nothing was further from our thoughts, nor can we permit this question to pass without assuring him in the most distinct manner, that the above calculation was made before we wrote the Note.

3. We have said above that 1·60 of soda decompose 11·33 grains of calomel. The ratio is about 1 to 7.

There are several other parts of Dr H.'s paper on which we were prepared to animadvert, but our observations have already extended to so great a length that it is time to close.

We will now admit that, it is not probable that the decomposition of the soap is complete, or in other words that 11·33 grains of calomel are decomposed; in consequence of the small quantity of water required, the adhesive nature of the mass, and of the fat which is disengaged, or the points of contact between the soda and the metallic salt are probably limited, and some of the 11·33 grains may escape decomposition. That a considerable portion of it however is decomposed we have no doubt; and a pill therefore is formed which is less active than calomel alone but possessed of more power than the common *blue pill*.

To conclude—Dr Hazeltine accuses us of 'freedom of remark in more than one passage of our Note.' We have carefully reperused it, and can find no foundation for the observation unless the quotation of his own expressions be construed as such. He says 'we may deem his questions impertinent.' We do indeed deem his whole communication to be written in a style, which is both impertinent and offensive, more particularly as he was the aggressor. We should be sorry to imitate it, nor can we account for it in any other way than by inferring, that he mistook the ground of discussion, and because he had used soap in making pills, fancied we were attacking him, while we were merely animadverting on two formulæ of the National Pharmacopœia. A man must be morbidly irritable indeed who, in the note in question, could find any thing which should warrant him in saying, that we have there displayed a disposition 'to cut him up, root

and branch, and to give no quarter, even if solicited." We now leave him with the advice to keep himself cool and study chemistry.

Clinical Remarks. No. III. By A. L. PEIRSON, M. D.

[Communicated for the New-England Journal of Medicine and Surgery.]

On Injury of the Knee Joint.

APUNCTURED wound opening the capsule of the knee-joint, often gives us the example of a great effect produced by a trivial cause. Unless the wound immediately closes, without inflammation, there is liable to ensue a very great disturbance of the system, and when the danger of this is past, the immense discharge of synovia which sometimes takes place, may induce alarming debility. The following case therefore affords an instructive lesson.

December 11th, 1820. J. B. Carpenter, aged 30.—While at work in the evening, and being chilled with the cold, struck his right knee, just over the inner condyle of the femur, a slight blow with the corner of his broad axe. He paid no attention to the cut till he felt faint, when he discovered he had lost much blood. He was able to walk home, about a mile, the wound bleeding all the way. When he arrived he fainted from loss of blood. The wound was carelessly dressed, and he remained at home during the 12th, and on the morning of the 13th, went to work as usual, feeling considerable weakness which he attributed to the loss of blood. At noon of this day, a quantity of watery, gelatinous fluid was suddenly discharged from the wound, and he felt excruciating pain of the knee, with spasms of the muscles of the thigh. On the evening of this day, I first saw him. A probe passed into the wound, which was not more than one fourth of an inch in length, passed within the capsule of the joint. The knee was painful to the touch in every part, but especially in the ham. The pain very violent, at first gradually abated till after 24 hours it ceased, when symptoms of irritation commenced; the tongue was darkly coated, the pulse 100 and small; nausea, thirst, wakefulness, and considerable delirium came on, and increased till the sixth day, after which these symptoms gradually declined. There was a daily exacerbation of fever, which for three successive days was followed by bleeding from the nose to about four ounces each time. The patient was ordered a non-stimulating diet, and took small doses of neutral salts, and on the 4th, 5th and 6th days, after the accident, eight

leeches were applied to the knee, which was kept wet with an evaporating lotion. Under the use of these means the pain and soreness subsided, but the discharge of serous fluid from the wound was prodigious; after the 4th day for several days it was not less in quantity than two pounds a day. The bursæ mucosæ underneath the insertion of the triceps, into which the probe passed readily, would alone discharge several ounces at once. The discharge continued in considerable quantities for many weeks, and the patient was brought very low with daily fever, night sweats, diarrhœa, headache and loss of appetite. He was sustained with bark, sulphuric acid and cordials; the discharge ceased, the wound slowly healed, and in the middle of April, he went to his work in tolerable health, though much weakened; the joint was swelled, and admitted of but little motion, the muscles of the thigh were a little contracted, and the patient for many months suffered much pain at night, after his daily labour. By degrees the pain lessened, the mobility of the joint increased, he walked without the support of a stick, and at this period, three years from the accident, the lameness in his walking is not perceptible without minute examination.

It is probable in this case that the capsule was not perfectly opened at the time of the accident, but burst while at work on the second day. It is also probable that the patient saved himself from an incurable ankylosis, by the necessity he was under of persevering in his daily labour before the mobility of the joint was entirely lost.

Hæmorrhoidal Tumour.

NOVEMBER 8th, 1822, Mrs. C. aged 50, has suffered many years from what she has considered procidentia ani. Has suffered recently from costiveness, deficient secretion of bile and other symptoms of an affection of the liver to which she has for many years been subject. The descending gut has recently much increased, and its reduction, which becomes necessary after every stool, grows more difficult: says her sufferings sometimes, in making this attempt, equal those of parturition. She was ordered twelve leeches to be applied to the verge of the anus, the bowels to be regulated by opening medicine, and emollient enemata; the bowel, when protruded, to be bathed with a saturnine lotion and carefully replaced. After several days these means were found to produce no mitigation of suffering, and she consented to an examination. Instead of finding the bowel

protruded, an irregular hæmorrhoidal tumour was discovered, just within the sphincter, the descent of which always preceded the alvine evacuation, and the returning of which created so much distress. This tumour when distended with blood was nearly two inches in its greatest diameter, and occupied by its attachments a semi-circumference of the anus. These attachments were three pedicles, one broad and two slender ones. The division of the first of these which I made with a bistoury caused a considerable bleeding from two small arterial branches, which ceased bleeding soon after the free affusion of cold water. The patient shortly recovered, and has since remained entirely free from her former distressing complaint.

As there is, perhaps, no case in which a very small degree of skill can do so much for suffering humanity, as that in which it is practicable to remove hæmorrhoidal tumours, excrescences, and thickened folds of the lining of the rectum, so it is the more to be regretted by the inexperienced, that such a difference of opinion exists among high authorities as to the best mode of effecting their removal. Mr C. Bell, prefers the ligature—see his *Operative Surgery*, Am. Ed. Vol. I. p. 98. Mr Howship finds the ligature is not more painful than the knife, and much less hazardous. On diseases of the Rectum, Am. Ed. p. 179; while Mr Abernethy, who was led to the practice from witnessing the immense sufferings of patients while undergoing a natural cure of the piles, in which the sphincter acts as a ligature, asserts, that for twenty years during which he has been in the practice of removing these tumours with a knife or scissors, he has never met with any circumstance to deter him. *Surgical works*, vol. ii. p. 233. J. L. Petit, after abundant experience in the use of both the ligature and the knife, decided in favour of the latter, as probably will most surgeons, when it is considered that the histories of cases present us with at least as many fatal and dangerous ones from the use of the ligature, as of the knife. These remarks apply to the organized hæmorrhoidal tumour, and not to varicose hæmorrhoidal veins, in removing which it may be doubted if cutting instruments are ever proper.

Singultus.

AUGUST, 5th, 1821.—E. R. an unmarried woman, aged 20, saw her first at midnight, when she was hiccuping violently about once in ten seconds. Has great difficulty of breathing—respiration attended with a noise somewhat resembling that of Cynan-

che Trachealis. Pulse 65, small and very soft. States that while employed with a paper-stainer, she received a blow on the right side over the hypochondrium, and that she has ever since been troubled with hiccup, especially after eating. Let her take an opiate to be followed by some cathartic pill. August 6th, opium relieved the breathing; pills have not purged. Continues to have paroxysms of half an hour's duration, in which the hiccuping is so violent that general convulsions seem to be threatened. Let her take Sulphate of Magnesia in infusion of Valerian till the bowels are moved. Is obliged, from the severity of the hiccup, to take a moderate dose of opium every two hours.

August 7th. Operation of Cathartic, afforded some relief to her head, but the hiccup continues quite as severe. Appetite for food is better than in health; tongue and pulse natural. Complains of severe pain of the right side, venesection was ordered, but owing to the inconvenience of bleeding by candlelight, only six ounces of blood were drawn.

8th. Passed a better night than any of the preceding. Hiccup a little abated but still severe. Pain of the side is increased. Let the side be bathed with an ammoniated embrocation. Let her take cathartic pills and continue the opium as required.

9th. Sleep much disturbed by hiccup and difficult respiration. Cathartic operated freely without relief. Passed the day much as yesterday. Twelve ounces of blood were drawn from a free orifice. Complete syncope was produced, followed by an abatement of pain in the side. Continue the opium.

10th. Has passed a better night—hiccup much abated. Under the use of light tonics, the patient in a few days recovered, and the history of the case became less obscure, when, in about eight months, she was delivered of a healthy infant. It is probable, that pregnancy was in a great part, if not solely, the cause of the disease, and that free venesection in the first instance would, have been effectual in removing it.

Salem, March 6th, 1823.

On Erysipelas of the head treated by Bark. By GEORGE PARKMAN, M. D.

[Communicated for the New-England Journal of Medicine, &c.]

ERYSIPELAS of the head follows exposure to cold and fatigue, presents in its early stages chilliness, painful stiffness of the neck, constricted countenance, burning pain over and redness of the eyes, itching of the ears, a little suppuration at the inner angle of the eye; the face, above the mouth, inflames and

swells, generally from above downwards; the ears swell unequally, the eyelids close by swelling, spots of the cuticle are raised forming vesicles; drowsiness, sometimes muttering delirium follows, which I have seen, in a labourer, accompanied with tremour. When the purplish redness begins to subside, as it generally does from above downward, soreness of the throat, desquamation of the face appear. When erysipelas is disposed, of itself, to subside, it begins to subside about the 6th or 7th day.

In the spring 1810, I watched the disease in a stout girl aged twenty, sedulously treated, according to the general principles of medicine,* by a physician at the head of his profession; she died, four days after erysipelas became manifest.

I was told at St Thomas' hospital, London, 'As soon as a patient, under erysipelas, enters the hospital, a nurse calls on the apothecary for peruvian bark powdered, and gives a dram of it hourly till the redness manifestly begins to subside.' The late Wm. C. Wells, F. R. S. senior physician of the hospital said 'no indirect arguments have been found necessary to persuade those to relinquish the attempt to cure erysipelas by large evacuations who have witnessed the effects of bark, early in the disease, in large, frequent doses. I conclude the bark, if it does not prevent death, at least shortens considerably the disease. Dr G. Fordyce, upwards of twenty years, has been accustomed to give, at the hospital, a dram hourly in dangerous states of the disease.'

Those who have visited the hospital, must have remarked Dr Wells' singular devotion to clinical duty; those acquainted with him, are impressed with his accuracy, dispassionate, chastened language, and high character as a philosopher. Sir Gilbert Blane, who in his medical logic, has so sensibly defined the basis of medicine, says 'bark is the best remedy in erysipelas, my success with it has equalled Dr Fordyce's.'

February 1813, a severe case was committed to me. I could not have fulfilled my responsibility better than in obtaining Dr Wells' counsel. In the happy lesson then taught to me, I have had a guide in several such cases; some of my enlightened medical friends think they have hence derived many satisfactory results.

Bark, taken so largely, is sometimes vomited or proves laxative, the stomach or bowels seems supersaturated, then one or two

* 'A physician's first duty towards a patient is to examine what are the deviations from health; in what part they act primarily; what the morbid action is. When he cannot clearly ascertain this action, all he can do is to counteract as far as possible whatever is amiss in the general state of health, in order to assist nature in throwing off the morbid actions.'

doses may be deferred, and the tone of the bowels confirmed by a bandage; apprehensive that mischief may arise under diminished presence of the bark, I have generally resumed it soon. January 7th, 1823, a man, aged 35, had a lung-fever; in convalescence, he took some strong drink, disease recurred, was again subdued, erysipelas followed. He took a table-spoonful of bark in water every four hours. After the 6th dose he had two stools; I discontinued the bark; in nine hours from that dose, the inflammation had manifestly begun to subside.

I have seen erysipelas twice in a girl, aged 24; about 2 years passed between the attacks; an itching superficial erubescence extended itself over her neck and upper extremities, lasted longer than the severer inflammation of the face.

Physicians with whom I have conversed, who, in erysipelas, use depletion, mercurial action, &c. say, they witness fatal issues of the disease under the same apparent modification of it as attended their most satisfactory efforts, this makes them doubt the agency of their treatment in the cure: besides, when the inflammation subsides, it is after a much longer time than under use of bark.

Some people are affected with the headach at certain periods, e.g. at waking in the morning, after sunset; a large dose of bark, taken a few hours before the period, has been followed repeatedly by exemption from headach. Some pregnant women experience a chilliness in the forenoon, and have seemed relieved under the same treatment; and it seems useful between fits of tic douloureux and of recent mania.

REVIEW.

ARTICLE V.

Observations on those Diseases of Females which are attended by Discharges. Illustrated by Copper-plates of the diseases, &c. By CHARLES MANSFIELD CLARKE, Member of the Royal College of Surgeons; Surgeon to the Queen's lying-in Hospital; and Lecturer on Midwifery in London. Part I. London. Longman, & Co. 1814. Part II. 1821.

THE first part of this work reached us some years ago. It was intended then to make an analysis of its contents for this Journal. The plan was laid aside however, in the expectation of soon receiving the second Part, and the advertisements in the foreign Journals of that time, gave countenance to the expectation. After seven years from the publication of the first part, the second has appeared. This has been received here, and it is now proposed to offer the readers of this Journal, an analysis of the contents of the two volumes. Mr Clarke's work has been favourably received by the profession. Such a work was wanted, and this one has met the demand. It is printed in a style of uncommon elegance. The plates seem to be very accurate, and are beautiful specimens of anatomical engraving. The only objection that can be brought against so much elegance in typographical execution, will be found in the price of the work, and the limited circulation which this circumstance may involve. The price however is not disproportionate to the real value of the work, for without great accuracy, or in other words great beauty and elegance in the style of engraving, plates intended for the purposes designed in these volumes would be worthless. These remarks are made in the sincere hope, if an American edition of Mr Clarke's *Observations* be published, notwithstanding all the valuable additions, notes, &c. with which it may be supplied by the American editor, that the public may be indulged with all that is peculiar and valuable in the English copy.

Mr. Clarke in his preface thus states the objects he has in view in his work.

‘The author has had two objects in view in laying the following Observations before the public. In the first place, it appeared to him to be desirable to make some arrangement of the sexual diseases of the female. In the second, to shew that diseases having some symptoms in common, are nevertheless very dissimilar in their character, and require very different treatment; to demonstrate the impropriety of designating diseases by names which do not convey a true idea of their character; and to point out the dangerous consequences of treating symptoms instead of diseases.’ p. 5.

Chapter I. *Respecting the sexual organs in the female, as far as their secretions are concerned.* The anatomy of these organs is omitted.

‘All the discharges from these parts come away from the os externum; but they spring from various sources, and are of different kinds. The parts from which these secretions arise, are:

- ‘1. The internal surface of the uterus and of the fallopian tubes.
- ‘2. The inner membrane of the vagina.
- ‘3. The lacunæ about the os externum,
- ‘4. The mucous membrane of the urethra.*

‘These will be separately considered.

- ‘1. The secretions from the uterus. These are:

‘α. The menstruous secretion.

‘β. The secretion from the mucous membrane of the uterus, which extends to the cavities of the fallopian tubes.

‘γ. The secretion from the glands in the neighbourhood of the cervix of the uterus.’ pp. 10, 11.

α. Menstruous secretion. The sensible qualities of this fluid are noticed, and the evidence stated which goes to prove that it is a secretion, and not a periodical discharge of pure blood. There is at least one circumstance in which this secretion differs from all other secretions in the body. It is this: the colouring matter of the blood, the red globules, pass out of the secreting vessels, along with the secretion itself, and this during the most healthy state of the function. This is not the case with the secretions of any other organ in the body, except during disease. During disease we do find this occur, and in textures exactly resembling the lining membrane of the uterus, the mucous texture.

It deserves notice in connection with what has now been said, that when this uterine function has been vicariously performed, the vessels of the organ which has assumed the function, let its structure be what it may, give passage to the colouring part of the

* These are the surfaces from which the natural secretions arise: but discharges from the os externum may originate from the surfaces of newly-formed tumours, as the cauliflower excrescence; or they may be the contents of cysts of hydatids.

blood, either along with the proper secretions of the part, or simply with the other constituents of the vital fluid. This peculiarity in the character of the menstrual fluid, may assist in the explanation of the relation the catamenial function has with uterogestation, and particularly to foetal nourishment. Pure blood is certainly received by the vessels of the maternal portion of the placenta, from the maternal system, and among the changes it undergoes in the placenta, it does not lose its colouring matter. The most careful examination of the placenta, has not detected in its whole mass any thing like a peculiar secretion, or in other words a fluid formed from the blood, and possessing characters by which we are able at once to distinguish it from the blood itself. The fluid in the foetal portion of the placenta, where such a secretion might be looked for, resembles in the main, common blood. It differs from blood very much as the menstruous fluid differs from it. It is little disposed to coagulate, and the coagulum, if such it can be called, is exceedingly delicate in its structure. It retains this, and other peculiarities during its circulation in the foetus. It is not intended to be said here, that the fluid prepared by the placenta from the maternal blood for the nutrition of the foetus is precisely similar with the fluid of the catamenia, but that analysis of the two fluids have shown that they strikingly resemble each other.

On the quantity of the menstruous fluid, we have the following remark.

‘ Whatever is capable of increasing the determination of blood to the vessels of the uterus, may increase the quantity of this secretion : and if this determination of blood is increased above a certain point, the orifices of the vessels give way, and blood is mixed with the secreted fluid : but if, in consequence of this determination of blood to the uterus, inflammation takes place, then coagulating lymph is thrown out, as from other inflamed mucous membranes, and the secretion is diminished till the lamina of coagulating lymph is separated.’ pp. 13, 14.

β. *The secretion from the mucous Membrane of the Uterus, and of the Fallopian Tubes.* This secretion resembles that of all other mucous texture. It continues during life, with the exception of the time of pregnancy. It is secreted in a very small quantity in health, for its purpose is merely to lubricate, and a very little is enough.

γ. *The secretion from the Glands in the cervix of the Uterus.* The structure of the cervix differs from that of other parts of the uterus. It is beset with glands. The secretion of these glands contains less water than the mucus of any other part. It is semi-transparent, very adhesive, and more like a solid than a

fluid. It is secreted, in a state of health, only during pregnancy, and Mr Clarke thinks, though the evidence seems hardly conclusive, only in the commencement of pregnancy. Its office is thought to be to close the mouth of the womb to prevent the escape of the embryo. At all other times, except during pregnancy, the mucus of the cervix resembles common mucus.

2. *The secretion from the inner Membrane of the vagina.*—This membrane is a mucous membrane, and the secretion is mucus. It is however thinner than that which is formed by the mucous membrane of the uterus.

3. *The secretion from the Lacunæ seated in the vestibulum.* These parts furnish a glutinous mucus of a peculiar odour.

4. *The secretion from the Mucous Membrane of the urethra.* There is nothing peculiar in this secretion.

Chapter II. *Profluvium Vaginale, or Vaginal Discharge.*—‘Under the above term it is proposed to comprehend those morbid discharges from the vagina which have been variously, and perhaps improperly, named by writers.’ Mr Clarke begins with the nomenclature of this discharge; ‘whites’; ‘fluor muliebris’; ‘sexual weakness,’ &c. He prefers the name he has prefixed to this chapter, and at page 81, gives this definition. ‘The most simple definition of it appears to be, that it is a discharge of a fluid flowing from the vagina, varying in its consistence, quantity, and colour; either produced by weakness of the constitution, or by a change in the structure, position, or actions of the neighbouring parts, such change being the effect of natural or morbid causes.’

The importance of ascertaining the causes of this increased discharge is very properly insisted on by Mr C. If its cause be simple weakness, the case is a plain one, we are to increase the tone of the system, if it be deficient, or remove the local debility if this exist alone. If however the discharge is owing to a mechanical cause, a tumour in the vagina, or to excessive action or inflammation in the organ, the case requires a very different treatment. We may easily check the discharge, but we shall most probably increase the mischief. This point is kept in view through the whole of the book, and a valuable purpose will have been answered by this work, if it lead practitioners to a more accurate examination of these cases than they commonly receive. We are strongly tempted in treating the diseases of these organs to prescribe for symptoms. The *morbis ipse* is industriously concealed from us, and it is chiefly from the increasing violence of some symptom that we are called in at all. We seek for information about the case, from more convenient and less embarrassing sources than the patient herself, and find our indi-

cation in representations which are more frequently conjectural than true. Mr C. in another part of this volume, shows very satisfactorily that the only sure guide in practice is such an examination of the case by the practitioner as will make him acquainted with the disease itself. Mr C. goes on to express a hope that a classification of these diseases according to the discharge which attends them, will be useful, and very candidly states the objections that exist to taking this symptom as the basis of classification.

The discharges from the uterus may be comprised under the following heads.

1. Transparent mucous discharge.
2. White mucous discharge.
3. Watery discharge.
4. Purulent discharge.
5. Sanguineous discharge.

Transparent Mucous Discharge.—By this is meant, a gelatinous, nearly transparent, discharge, which is coagulable.

White Mucous Discharge.—This is opaque, of a perfectly white colour, resembling starch and water before heated; or thin cream. It is not adhesive to the finger, and is miscible with water. This discharge it is believed, proceeds from the gland of the cervix morbidly excited.

Purulent Discharge.—This fluid resembles common pus.

Watery Discharge.—This resembles pure water, and contains little if any glutinous matter. It exceeds, in quantity with the exception of blood, all other discharges from these parts. It is exceedingly troublesome to the patient. We have never met with the watery discharge in so great a quantity as in a case of violent inflammation in the abdomen following a laborious labour. The discharge was excessive, keeping the patient constantly soaked in the fluid. It was colourless, and highly fetid. No lochia occurred. A very little black blood only, followed the expulsion of the placenta. This case terminated fatally the third day from confinement.

Sanguineous Discharge.—The name is a sufficient definition of the affection. Of the sanguineous discharge Mr C. says:

‘When the quantity is considerable, when it escapes from large vessels, or is quickly forced out by the energy of the action of the heart and arteries, it comes away in a fluid state: when it escapes more slowly, and the exit of it is for a while retarded, being in a state of rest, it coagulates, assuming the figure of the parts in which it lies: where very little is poured out, not enough to form a stream, or a coagulum, of much thickness, it simply covers the surfaces over which it flows, and becoming solid, escapes from the external

parts, either in the form of hollow casts of the cavities in which it has been retained; or some times, spreading itself over the surfaces of tumours, it comes away in the form of circles of coagulated blood. In this latter case, the shape of these rings of blood escapes observation generally; for being received upon the linen of the patient, by collapsing they lose their proper form: but if they are placed in water, or if they come away with the urine, they fall into the vessel which contains it, and demonstrate the manner of their formation.—By the action of the surrounding parts upon these coagula of blood, the serum is squeezed out of them; and the coagula themselves, having acquired a greater firmness than usually belongs to coagulated blood, are sometimes regarded by patients as diseased tumours which had been formed in the parts. The coagulating lymph of the blood sometimes comes away unmixed with the colouring matter or the serum: this happens in inflammation of the mucous membrane of the vagina and uterus. Many cases of this kind are mistaken for abortions: since the substance discharged resembles decidua, both in colour and thickness; and the pain which attends them makes the resemblance between the two cases greater. Periodical returns of the pain are met with in both occurrences. The difference between the two cases consists in this—The transparent membranes of the ovum will be wanting, if the case is not abortion; and in inflammation of the mucous membrane of the uterus and vagina, although there will be occasional pain in the attempts to expel the adventitious matter, there will remain a permanent pain, arising from the continuance of the morbid action of the parts, which will be wanting in abortion.’—pp. 38, 40.

The colourless masses are here spoken of as liable to be mistaken for abortions. The coloured ones have been mistaken for portions of placenta, and the practitioner has even been charged with having broken and left in the uterus portions of this organ, because masses of coagulated blood, resembling the placenta have come away from the uterus, at periods after the lochia have ceased, but when the uterine vessels have not been able to support the weight of the circulation in them, increased as it has been by various imprudences. Such errors may always be avoided by an examination of such coloured masses as now and then pass the vagina in the cases alluded to.

Chapter III. *General Observations on Sexual Diseases, and on the necessity and mode of making an examination per vaginam.*—This chapter has been already alluded to.

Chapter IV. *On Sympathies.*—This chapter contains much that is interesting, and less that is new. The sympathy of the stomach with the uterus, during various morbid states of the latter, is particularly mentioned. We quote the following para-

graphs on the different sympathies which may be noticed between the stomach and breast, in different states of the former organ.

‘ When the functions of the stomach are disordered, and sometimes when only in a very trifling degree, the breasts become softer and more flaccid, and the gland itself seems altogether gone; and this too when the tone of the system generally is not much diminished, nor the size of the other parts at all shrunk. In this case, the return of the firmness and size of the gland becomes the strongest mark of the returning health of the stomach.

‘ An exception to the above statement, respecting the sympathy between the stomach and the breasts, is observable in pregnancy; in which state, notwithstanding the functions of the stomach are greatly deranged, the breasts continue firm and hemispherical, and become even harder and larger than at other times; but this is to be regarded in another way, and is part of a process for the maintenance of the child to be born.—pp. 49, 50.

Chapter V. *On certain Diseases attended by a mucous discharge from the vagina.*—‘ Some of these complaints consist of the displacement of parts: as

Procidentia Uteri.

Procidentia Vesicæ.

Procidentia Vaginæ.

Inversio Uteri.

Procidentia Uteri.—This has been called descensus uteri, in the minor degrees of the disease, prolapsus in its extreme, or that in which the uterus has fallen out of the body through the external parts. Mr C. first notices the natural situation of the uterus; next the degrees of procidentia which may occur; the effects of this displacement on the situations of neighbouring and connected parts. The time in which the descent may require for reaching its greatest extent, and the circumstances which may check its progress; the symptoms of its progress; &c.

‘ When the tumour becomes very large, the skin of the labia is drawn down, so that these parts are no longer distinct projections; but the tumour begins close to the upper part of the thighs, being covered by the cuticle of the labia, and the greater part by the membrane which, under natural circumstances, lines the vagina.

‘ The vagina, being exposed to the action of the air upon it, loses its florid colour, and acquires that of the skin of the body. It also loses its peculiar sexual irritability; not indeed becoming insensible to pressure, but its sensations being by no means so acute as they are in the natural state. The anterior part of the abdomen, instead of possessing its usual convexity, becomes flatter, from the viscera of the abdomen having left its cavity. When the uterus and its appendages only have fallen out of the external parts, but before the

other viscera have fallen into the inverted vagina, the tumour has a lengthened form, which, taken together with its situation and the opening at the lower part, has made it sufficiently resemble the male organ to impose upon the credulous; and such persons have been exhibited as hermaphrodites.' 'After some time the breadth of the tumour increases, so that it becomes of a globular form. The situation of the viscera being thus changed, they become liable to pressure in a greater degree than when they maintained their natural situation in the cavity of the abdomen; and inflammation is sometimes the effect of this pressure. Coagulating lymph is in such cases thrown out, which unites the parts; and if either the omentum, or a portion of intestine, be thus connected with the lower part of the tumour, pain may and will be felt in those situations of the belly from which such parts proceed. In the young woman from whom one of the drawings was taken, where the omentum adhered to the fundus of the uterus, pain was felt in the region of the stomach, and became a cause of great distress.'—pp. 66, 68.

'The immediate causes of this disease are :

1. Relaxation of the broad and round ligaments above.
2. A want of due tone in the vagina below.'

How these causes concur to produce the disease, and the circumstances which are most favourable for its production, will be readily perceived. Getting up too soon after confinement, and occasionally after abortion, are particularly mentioned, and it is recommended to such patients to remain for the greater part of the time in the horizontal position, till the uterus have returned to its proportions in the unimpregnated state, and until the ligaments and vagina can furnish it sufficient support when the patient is erect. This ordinarily occurs between the third and fourth week after delivery.

Symptoms.—These are very faithfully detailed. We make a few extracts.

'The pain in the back which attends procidentia of the uterus, should be distinguished from that which is met with in cases of separation of the joint between the os ilium and the os sacrum, after some cases of labour. It has been remarked, that the pain in the back arising from procidentia is greatest when the patient is erect, and that it subsides in the horizontal posture. In the case of separation of the joints alluded to, the patient has a great difficulty in standing, or perhaps cannot stand at all, is uneasy even in the recumbent posture, and incapable of moving in bed without great pain.

'Procidentia uteri and separation between the bones of the pelvis may exist together in the same patient.'—pp. 74, 75.

An increased discharge attends the disease. At least this is the case while the displaced uterus remains in the vagina. The

quantity differs in different individuals. When the uterus escapes from the vagina, the vagina constituting its external covering, begins to lose its secreting function. At length it becomes quite dry and smooth like the common integuments. It next becomes inflamed, and ulcerates by external injuries or exposure to the air. The os uteri seldom escapes similar ulcerations. With respect to diagnosis, it is sufficient to say that the existence of the os uteri at the lower part of the tumour, will enable us to distinguish procidentia from other affections of the uterus.

Chapter VI. *Treatment of Procidentia Uteri*.—The curative intentions are, to increase the tone of debilitated parts and to support the uterus in its natural situation. Tonic remedies of various kinds, and variously employed, are used for the first intention, and *pessaries* for the last. The remarks of the author on these points, are very sensible. From the care which he manifests to say every thing which his subject demands, the reader will probably receive the impression that Mr Clarke has been successful in the treatment of procidentia uteri. We are however free to confess that this has not been the case in a very great degree in our own practice. This remark is made here in order to make another. It is that we may do more, much more to prevent this very troublesome affection, than we can do to cure it. The ligaments having been stretched and elongated by the weight of the uterus soon after delivery, do not readily return to their original length, when the natural tone of the body is restored. The ligaments possess but little contractility, and the living fibre, or this particular one, is but little effected by astringent remedies. The vagina will contract, its cavity diminish, and give some support to the uterus, under the use of astringents and tonics. But where we do most with our injections, the uterus still keeps lower than it should, and disposes to excessive vaginal discharge if the injections be omitted; and the presence of a pessary in the vagina, is certainly a no very favourable circumstance towards producing a contraction of the vagina, or a diminution of the discharge. Procidentia uteri has been cured by pregnancy. The rising of the uterus, and the new and healthy actions of the parts connected, effect important changes. The uterus finds a natural support in the brim of the pelvis, and although the ligaments are elongated, this change in them is produced by healthy actions; and not by a mechanical weight, concurring with an enfeebled or morbid state of the ligaments themselves, as is the case in procidentia. If the patient will be careful after delivery, the procidentia may never recur. A physician in a neighbouring state has invented a pessary which appears to have some advantages over those in common use. He has se-

cured to himself however the exclusive privilege of making it, from the patent office, and hence a description of it would be useless, however accurately it might be made.

Procidentia Vesicæ This disease has been confounded with the preceding. The bladder brings the vagina down with it, and the case has hence been described as a descent of the vagina. The latter term however should be confined to the prolapsus of the posterior part of the vagina. The disease is noticed by Mr Clarke, because many writers on the female organs have said nothing about it, and because it has a peculiar symptom which seems to have first been noticed by the author. The bladder descends in various degrees. It happens oftenest from exertions made soon after confinement. It may be that in some of the cases the bladder from torpor incident to some circumstances in the labour, allows of an unusual accumulation of urine, and from the relaxed state of the vagina, finds as ready accommodation, from the yielding of this part under the increased weight of its contents, as it would do from rising above the symphysis. It may happen at any period of life, and severe coughs seem to have had as much agency in its production as any other cause.

‘The symptoms of the disease in some respects resemble those of procidentia uteri; but some of the latter are wanting, and others not present in procidentia uteri are met with in this ailment. The weight of the part induces the woman to complain of a bearing down; not however to the same extent as in procidentia uteri. When any urine is contained in the bladder, the patient is much more uncomfortable, as the size of the tumour is much increased when the bladder is full and vice versâ. The tumour seldom goes away entirely, because some urine generally remains in the bladder even immediately after the woman supposes that she has emptied it; it appearing that these muscular fibres of the bladder, which form the pouch or tumour, have not the power of contracting so as to expel the whole of the urine.

‘A mucous discharge often attends the disease: but the quantity varies. In some cases it is very profuse.

‘The peculiar symptom which marks this complaint is a pain referred to the navel, with a sense of tightness there. This pain is the greatest when the bladder contains the largest quantity of urine; and as it parts with its contents the uneasiness diminishes, till at last when it is empty, or nearly so, the symptom goes off altogether.’— pp. 125, 126.

These symptoms, and actual examination, will readily enable the practitioner to distinguish this affection from others with which it has been confounded. The treatment consists in supporting the bladder by a *globular* or egg-shaped pessary, and by astringent injections into the vagina.

Procidentia vaginae. This is a descent of a portion of the posterior part of the vagina below the natural defined edge of the perineum. It may follow laceration of the perineum, and is produced by a loaded state of the rectum, and by the voluntary efforts frequently required to empty that bowel.

‘The complaint may also be produced by cysts belonging to diseased ovaries falling down into the hollow between the rectum and the posterior part of the vagina. In one case where this happened in labour, the author was consulted, under a supposition that the prolapsed part was the bag of membranes formed by the amnion and chorion, and attempts had been made to break them. The case was terminated by opening the child’s head, by means of which operation the life of the woman was saved. After the labour the cyst went up again into the cavity of the abdomen, and the vagina being no longer pressed down regained its natural situation.’—p. 136.

In the treatment the first object is to empty the rectum, and in some of these cases a manual operation is required to effect this. Let the alvine evacuations now be regularly induced, astringent injections used, and a globe pessary introduced, under these means the disease may disappear.

Inversio Uteri. This may be produced by mismanagement of the placenta. Polypus has been said to do the same. ‘The immediate consequences of an inversion of the uterus, when it takes place after delivery, are hemorrhage, faintness, and a sense of fulness in the vagina. The woman in this case compares the feeling with the sensations she experienced just before the child was born.* If the nature of the accident is discovered early, it will admit of a ready cure, by the return of the parts to their original state. This is to be effected by making pressure upon the LOWER PART only of the tumour, so as to cause this part to be received into that above it: a continuance of the same pressing force will in some cases quickly reduce the tumour.’

The fact of inversion passing into a chronic state is the occasion of the subject finding a place in Mr C.’s book. In this stage it may be confounded with polypus, and procidentia uteri, and procidentia of the bladder. The facts given in relation to the two last will assist the diagnosis and when polypus is spoken of, the circumstances which distinguish inversion from that will be seen.

As long as the inverted uterus remains in the vagina the principal symptom will be an increased mucous discharge, during the

* This case may probably be distinguished from one of internal hemorrhage by the absence of the tumour, usually perceived on compressing the abdominal parietes after delivery. *Rev.*

catamenial periods we shall have the menstruous fluid. When the organ appears externally, inflammation and ulceration will occur on the exposed mucous surface, and a perpetual and exhausting drain be thus established. Very little is to be accomplished by treatment. The discharge may be diminished in the first stages of the affection by injections, and cleanliness promoted. Pessaries are useless. For the extreme symptoms which may attend on the inverted uterus, enlarged as it may become, when it has escaped from the vagina, extirpation has been practised.

‘The following case occurred to the author some years ago :

‘A poor woman, sixty years of age, complained of a tumour which hung down from the external parts between her thighs, attended by discharge of mucus and of pus, so profuse in quantity as to make her exceedingly weak. Upon an examination of the tumour, it appeared to be an inverted uterus, the whole surface of which was in a state of ulceration. Above this tumour was the vagina, also inverted, having partial ulcerations upon it. The circumstances in life of the patient obliged her to apply to a dispensary for relief: her sufferings, although not acute, were sufficient to interfere with her comfort; and her increasing weakness made her readily consent to the performance of an operation for the removal of them, which was performed by Mr Chevalier, surgeon to the Westminster General Dispensary. A ligature was applied round the contracted part of the tumour; that is, where the uterus terminated and the vagina began. It was tightened daily until about the eleventh or twelfth day, when the parts included in the ligature were absorbed, and the uterus fell off. During this time the patient complained of very little pain. Adhesions had taken place between the sides of the vagina, so as to prevent the exposure of the cavity of the abdomen; and the woman recovered. After an operation of this kind, the vagina should be returned to its natural situation, and it should be kept there by a hollow globular pessary. In all probability this support will be required during the remainder of the patient’s life, as the vagina may otherwise fall down and project between the labia.’—pp. 151, 153.

Chapter XI.—*On Mucous Discharge, produced by an increased determination of blood to the sexual organs.*—Hemorrhoids, or piles, ascarides in the rectum, and carcinoma recti are the subjects of three succeeding chapters. These diseases have a place in Mr C.’s work, because one of their symptoms is a mucous discharge from the vagina. It is not necessary to analyze these chapters here. As to the discharge it is of minor importance in the treatment. We are to attempt the cure of the diseases of which it is a symptom, and if it does not yield after we have cured the original affections, the discharge is to be checked. These remarks apply to the piles and the worms. Carcinoma of the rec-

tum is an incurable disease. In its treatment, to palliate the violence of symptoms, and thus render its progress less rapid, and less distressing than it otherwise would be, should be the main purpose with the practitioner. The vaginal discharge is one means by which the disease in a measure is held in check, and its severity mitigated, and its quantity has some relation to the extent of the local affection in the rectum. It becomes excessive under errors in diet, fatigue, and constipation, but this does not call for such medicines as will control the discharge. If we exhibit such, the original affection will be aggravated. Mr Clarke has the truth of the matter in the following paragraphs:

‘The mucous discharge should by no means be restrained by the use of astringents; because, if suffered to continue, it will retard the progress of the disease. If it should be hastily or incautiously checked, the symptoms will quickly increase, the pain will become very violent, and the disease altogether very sensibly aggravated.

‘Tepid water may be thrown into the vagina several times a-day, with a female syringe, and the external parts may be frequently washed with it. This will prevent the discharges from becoming irritating, or excoriating the parts over which they run, and the neighbouring parts will be much soothed by it. The temperature of the water employed should be below that of the body.

‘When means have been employed to diminish the discharge from the vagina, it is not unusual for the patient immediately to observe an increase in the violence of the symptoms! and this remark leads sometimes to the knowledge of the state of the uterus, or of the neighbouring parts, which might otherwise have escaped observation.

‘The attention of the practitioner being called to the probability of the existence of some organic disease, he ought to satisfy himself by an examination. Perhaps the disease may be out of reach, either by the rectum or the vagina, and the nature of the complaint may not be ascertained: yet, if upon a return to the use of astringent injections there should be an augmentation of pain, it will be prudent to act as if such disease was known to exist. By such conduct no harm can be done: from the reverse much mischief may ensue.

‘Women who do not manage the syringe dexterously, sometimes affirm that their complaints have increased after the employment of an injection, even when warm water only has been injected. In such cases it may reasonably be suspected, either that the instrument employed has been badly constructed, or that the woman has not used sufficient caution in the introduction of it. This should be inquired into; and the practitioner should instruct the patient in the best mode of using it, and not hastily give up a remedy which, if judiciously used, will add much to her comfort.’—pp. 188—190.

The 14th chapter is devoted to carcinoma uteri. This is a disease of more frequent occurrence than the last. In their lat-

ter stages they are attended by similar symptoms, and are equally fatal. 'The author means to include the hard tumour which arises from the cervix of the uterus, and the case where a hard thickening of the uterus takes place, (both of which are disposed to ulcerate,) under the name of carcinoma uteri.'—'By carcinoma uteri,' says Mr C. in the next page but one, 'is meant that disease where there is a tumour near to, or a thickening of, the cervix of the uterus, which tumour or thickening are (is) disposed to ulcerate.'

The subjects of this disease are for the most part the middle-aged. It attacks only, says Mr C. in the first instance the cervix uteri, and it is probably owing to the more complicated, and especially the glandular structure of this part, that has made it so remarkably the seat of this terrible malady. It has been common to call many diseases of the cervix, nay, of the whole uterus, or of any other part of it, cancers. Mr C. has laboured, and successfully too, to show how they may be distinguished. Let others than genuine cancer seem to resemble it ever so nearly, and occupy its peculiar seat, and let them be never so hard, upon examination after death they will be found free from ulceration; and if pus have been discharged from the vagina in their later stages, we shall find that it has proceeded from ulcerated spots of otherwise healthy parts, in the immediate neighbourhood of the tumour, and which have ulcerated from the pressure of the tumour upon them. If suppuration occur in such tumours, it will be found to have begun at the *centre*, not on the *surface*, one of the characters of ulcerated carcinoma. The irregularities on the surface of hard tumours or scirrhi, as they are called, have led many to regard them as carcinomatous. 'This however is no sure sign. 'The fleshy tubercle of the uterus has not unfrequently a rugged surface; but this tumour never ulcerates.' The size of the tumour should have some influence in the opinion we may form, 'the true carcinoma seldom becomes very large.'

'Two varieties of this disease are to be observed in the early stage.

'1. There is a firm tumour, of a rounded form, springing from the surface of the cervix uteri, or imbedded in it, whilst the other parts of the uterus are perfectly healthy, except that its parietes are thickened as the disease advances, and that its cavity becomes larger than that of an healthy unimpregnated uterus.

'2. Instead of any distinct tumour, the whole of the cervix of the uterus becomes larger and harder; and if this thickened part is examined by cutting into it, it puts on the same appearance which a regular carcinomatous tumour possesses.

'The two cases proceed differently. In addition to the usual symptoms of carcinoma, there will sometimes be found in the first variety

of the disease some mechanical symptoms. depending on the pressure made by the tumour upon the neighbouring parts ; which symptoms will be more or less severe, according to the size and situation of the tumour itself.

‘ In the second variety of the disease these symptoms do not exist ; because the carcinomatous thickening of the cervix uteri rarely acquires a sufficient size to produce them.’ pp. 196—198.

Carcinoma is influenced in its progress by the habits of the patient. Where these are attended to, and exposures of all kinds carefully avoided, this progress may be rendered slow ; or the suffering have been so slight even while much organic laesion is taking place, that we shall be surprised at the extent of the mischief when an examination is made. Sudden violence done the diseased part, as by labour, has made the progress of the disease very rapid. A case is given which strikingly illustrates this position. The symptoms of carcinoma follow. These are stated with great distinctness and accuracy. The description must correspond with similar histories which have been given by others, and this consideration makes it less a duty to copy them here. If we could have done it without exceeding the ordinary limits of our reviews, we should willingly have quoted the passages which contain the sympathetic affections which are excited by carcinoma. Chapter 15th contains the *treatment of carcinoma uteri*. The treatment differs in nothing essentially from that recommended in carcinoma recti. The diet should be as little stimulating as possible ; the bowels kept regular, and all excesses in heat or cold carefully avoided.

‘ No attempt should be made to stop the mucous discharge ; but if it should be secreted in large quantity, it should be frequently washed away, by injecting tepid water into the vagina. The heat of the water should be accurately regulated : if it is employed too cold, the secretion from the parts will be greatly checked by it ; and if too hot, increased action of the local vessels will be excited. The temperature may vary from eighty-six to ninety-four degrees of Fahrenheit, according to the sensations of the patient. The frequent ablution of the parts renders it less necessary for the woman to take any precautions for absorbing the discharge, which generally tend to heat the parts, and must be hurtful. The water should be injected by a female syringe several times in a day. If the woman continues to menstruate, the temperature of the water should be nearly that of the body at the periods of the discharge, lest it should be checked.’—p. 211.

‘ Iron has been recommended by some practitioners as a remedy for this disease ; but the author has not seen any good effects produced by its use. In some hard scrofulous tumours, and also in some foul ulcerations of the skin supposed to be cancerous, it has been useful ; but in carcinoma it is very doubtful whether its exhi-

bition has ever been productive of advantage. When the author has given this medicine, or seen it exhibited by the direction of others, in cases of carcinoma, it has produced injurious effects, by increasing pain, and in some instances the quantity of bloody discharge: the preparations used were the ferri carbonas, ferrum ammoniatum, and the tinctura ferri muriatis.

‘In treating this disease, as no cure is known for it, the practitioner must be satisfied with palliatives, and not be anxious to restore the vigour of the body, which might aggravate the disease again.’ p. 218.

Polypus of the Uterus. This is the subject of the sixteenth chapter.

‘Polypus of the uterus is an insensible tumour attached to the internal part of this viscus by a small neck forming a disease of a very important character.

‘These tumours are various, as to their appearance, shape, and degree of hardness. They are sometimes nearly white, at other times of a brown colour: they are sometimes very hard and resisting, in other cases so soft and yielding that they will not admit of the application of a ligature without breaking to pieces. Polypi of a hard kind will in some cases take on the form of the parts in which they lie: in the upper part of the nostrils, therefore, they are flattened; when they descend as far as the cartilaginous part of the nose, (less restraint being laid upon them,) their diameter is increased. In polypus of the uterus, the neck of the tumour, which is surrounded by the os uteri, is contracted; it spreads out below, because it has sufficient space for enlargement in the yielding vagina.’ —pp. 220, 221.

‘The symptoms which attend the disease are, first, a mucous discharge in considerable quantity, mixed at different times with blood; and in some instances the constitution becomes debilitated to an extreme degree by this symptom, before there is the least suspicion respecting the cause of it. Sometimes, instead of the mucous discharge being mixed with blood, large coagula of blood will be voided; and sometimes pieces of a ring-like form come away, produced by a small quantity of blood attaching itself to the surface of the tumour, and there coagulating; it at length slides off, and comes away. In other instances, the blood poured out becomes putrid in the vagina, and tinges the discharges of a brown colour, rendering them at the same time very offensive. This fœtor of the discharges induces in the mind of the patient, and sometimes of the practitioner, a belief that the disease is cancer; and this opinion is confirmed by the sickness which generally attends the disease.

‘The discharges from cancerous sores are fœtid, if great attention is not paid to cleanliness: but fœtor of the discharge is by no means peculiar to cancer; for whenever blood is retained and becomes putrid, this circumstance must attend: and if such rings of blood form upon the surface of polypous tumours, as have been alluded to above, there will be a difficulty in their sliding over the

lower part of the tumour, because it is generally larger than the upper part, or that nearest to its neck. In this manner may be explained probably the reason why the discharges are so generally and necessarily offensive in this disease.*

‘A sense of pressure and of bearing down are also found in this complaint; and these symptoms are proportioned in degree to the size and weight of the tumour. Pain is likewise referred to the back and groins.’—pp. 223—225.

‘The sympathy between the stomach and the uterus is sometimes excited, and frequent vomitings distress the patient exceedingly.

‘Here then, from one cause, are three symptoms producing great weakness; an increased secretion of mucus, hemorrhage, and vomiting, with derangement of the digestive powers, by which alone the strength can be recruited.

‘But the true character of the disease can only be ascertained by an examination. This will discover an insensible tumour projecting through the os uteri, by which its neck is entirely encircled, so that the finger can be completely passed round it.’ p. 226

The radical treatment of polypus is by ligature. The steps of the operation are to be found in most surgical books. Mr C. gives very precise rules on this subject, but his method relates a good deal to instruments which he has made for the operation, and of which he has given drawings. A description would not convey a very good idea of these, and it is not attempted.

Fleshy Tubercle of the Uterus.—‘It is a hard, whitish tumour, sometimes nearly as firm as cartilage, situated sometimes upon the surface of the uterus, between the muscular and peritoneal coat, sometimes projecting into the cavity of the uterus, and occasionally imbedded in its substance.’ The number, size, firmness and external characters of these bodies differ in different cases. The disease may be mistaken for others, and for pregnancy. Time will settle the question whether pregnancy exist or not, and if the tubercle be at first mistaken for dropsy of an ovary, the progress of the disease will enable us to correct the opinion. Fleshy tubercle is a pretty common disease. It occurs at any period of life. Mr C. has however not known it occur before the twentieth year. The married and single are equally liable to it. The tubercles have no disposition to ulcerate, nor to have suppuration happen in them. The appendages

* ‘Quid tibi vis, mulier nigris dignissima barris?

Munera cur mihi, quidve tabellas

Mittis, nec firmo juveni, neque naris obesæ?

Namque sagacius unus odoror,

Polypus, an gravis hirsutis cubet hircus in alis,

Quam canis acer, ubi lateat sus.’

of the womb are frequently found diseased, along with the womb. Nothing is known of the cause of the fleshy tubercle.

‘An increased discharge of transparent mucus from the vagina attends many cases. The other symptoms are for the most part mechanical, such as would be produced by any equally hard and large tumour in the same situation.’ What these symptoms precisely are which are the mere effects of a hard fleshy body arising from various parts of the uterus of different sizes, and of various progress, is very accurately stated by Mr C. The reader can be at no loss to conjecture what they would be, who recollects the situation and connections of the womb. In the following paragraphs the effects of the enlarged uterus on the bladder are noticed.

‘Above all things, the state of the bladder is to be attended to, and care should be taken to empty it by the catheter, if there should be retention of the urine. A difficulty in making water is a much earlier symptom attending the disease than a difficulty of passing the *fœces*: therefore the practitioner should never fail to inquire into the quantity of urine voided even before any complaint is made of constipation. After the tumour has risen into the cavity of the abdomen, its pressure upon the upper part of the *os pubis* may produce a retention of urine. In such cases the patient will be capable of voiding small quantities occasionally, if she lies upon her back with the pelvis raised a little from the bed.

‘Why inability of making water should come on before the woman becomes costive from pressure; and why, in some cases where the disease has acquired a large size, she never becomes costive at all; may be understood from considering the shape of the upper aperture of the female pelvis. It is of an oval form, and the long diameter is from side to side: consequently any tumour, the shape of which does not exactly correspond with this form, will (if it should be too large to enter the upper aperture of the pelvis) rest upon the upper and inner part of the *os pubis*, and the projecting angle of the sacrum. The sigmoid flexure of the colon terminating in the rectum, inclining towards the left side of the cavity of the pelvis, will thus lie secure from any pressure.

‘In drawing off the urine, the catheter should be curved very much before it is introduced, and should be carried up with its concave side towards the *os pubis*; otherwise it will not pass into the cavity of the bladder, which is made by the tumour to lie more forward than the symphysis pubis. If the catheter so curved will not pass readily, no violence should be used, lest it should break, or lest injury should be done to the urinary passage by it: but the fore-finger should be introduced into the vagina, and the tumour should be so raised that room may be made for the passage of the instrument between it and the *os pubis*. For want of due attention to all these

circumstances, many practitioners have failed in drawing off the urine, which will rarely happen otherwise.

‘A flexible catheter may be tried, if the practitioner cannot succeed with the common instrument; and if by no means the urine can be drawn off, the bladder must be punctured. The author never saw or heard of such a case; but it is nevertheless possible.’ pp. 253—255.

Verrucæ, or Warty Tumours arising from the Vestibulum. Vascular Tumour of the orifice of the meatus urinarius. These diseases are noticed because one of their effects is an increased discharge of mucus. The treatment is obvious. The warts, &c. are to be removed by ligature, or by excision, and if the discharge continue after its cause is removed, local remedies, injections, &c. may be advantageously employed.

The vascular tumour of the meatus has not been before noticed by surgical writers. It is a most distressing complaint.

‘There is in most women a degree of projection round the orifice of the meatus urinarius; and from this part sometimes the tumour arises, to which the above name of the vascular tumour of the meatus urinarius has been applied. The texture of this tumour is seldom firm: it is of a florid scarlet colour, resembling arterial blood; and if violence is offered to it, blood of the same colour is effused; its surface is somewhat granulated. It is exquisitely tender to the touch; and if an accurate examination is made, it appears to shoot from the inside of the urethra. It seldom acquires a large size. Upon separating the labia and the nymphæ, the excrescence is immediately exposed. Its attachment is so slight, and it is so moveable, that it appears almost like a detached body lying upon the parts.’—pp. 264, 265.

‘Patients labouring under the vascular tumour of the meatus urinarius experience sometimes great pain in making water; most probably from the pressure of the fluid upon the tumour, and the impediment which it may offer to the passage of it. The author has never known or heard of a case in which it was necessary to draw off the urine with a catheter.

‘The vascular tumour of the meatus urinarius requires removal by a ligature, or by the scissars and caustic. The ligature is to be preferred, as the tumour is less likely to return than when other means are employed.

‘The ligature employed should always be so thick as to press upon a large surface, and it should never be drawn so tight as to cut through the neck at once. The intention of the ligature is to destroy the life of the tumour, and to cause the absorbents to throw it off as an extraneous body. This may be effected in twenty-four hours; and the operation being thus concluded, the tumour may not return. Notwithstanding all the care of the practitioner, the parts will sometimes give rise to the re-production of the disease.

‘If, however, the neck of the tumour should be cut through in the application of the ligature, or if the scissars should be employed, the tumour will be especially likely to regenerate. Whenever the tumour is removed by the scissars, the part from which it arose should be touched with caustic, and the potassa cum calce, applied once lightly, will be more efficacious than repeated applications of argenti nitras. A piece of lint should be laid upon the part afterwards, and the patient should remain for a few hours in a state of rest. If there should appear any disposition in the disease to return, the timely use of the potassa cum calce will prevent its increase.’—pp. 267, 268.

Morbid State of the Urethra.

‘The disease seems to consist of an enlargement of the blood vessels of the part; because when the vessels are emptied of their contents, the size of the tumour diminishes. Judging from the colour of the tumour, there is reason to believe that the enlarged vessels are principally veins.’

‘The most speedy and effectual mode of relieving the patient is by emptying the vessels, either by puncturing them with a lancet, or by the application of leeches: either may be employed, according to circumstances. The size of the vessels and of the whole tumour will be diminished by these means, and its colour will be changed from a deep red to the proper colour of the part.

‘The fulness of the vessels being removed, lotions composed of solutions of lead may be applied cold to the parts, and these should be changed as often as they become warm. After a day or two, weak solutions of muriate of ammonia or of sulphate of zinc may be used: at first, the openings made by the leeches or by the lancet would be inflamed by them. Pressure is serviceable, and may be applied either by introducing a piece of wax candle, or a small roll of linen which may be previously dipped in the lotion.

‘It may be necessary to repeat the bleeding from time to time, if the symptoms should continue, or if having subsided they should return. The bowels of the patient should be kept in a relaxed state by some mild saline purgative, and the food of the patient should consist principally of vegetables. The horizontal posture should always be enjoined.’—pp. 272, 273.

On the transparent mucous discharge from the Vagina, not accompanied by any alteration of structure of the sexual organs. This is the subject of the twenty-first chapter of this part of Mr Clarke’s work.

‘This part of the subject includes two very distinct and dissimilar cases; whether the cause be considered, the symptoms or the treatment. The first is that which originates from, and is accompanied by, increased action of the vessels of the parts. The second, that which arises from debility: in which latter case, the former may terminate.

‘The case of transparent mucous discharge from the vagina attended by weakness, more frequently occurs than that which is accompanied with increased action; because many cases of the latter kind terminate in the former. A separate consideration will be given to each case.’—p. 274.

On Transparent Mucous Discharge from the Vagina, arising from increased action of the vessels.

The subjects of this case are plethoric women, whose external appearance may be robust and healthful, but who are in fact weak and very easily exhausted by slight exertion. The liver in many of these cases is disturbed. It becomes larger than natural, and its secretions are deficient or unhealthy. Hence are gradually developed all the various symptoms of hepatic affection.

‘Many years may elapse before any danger is apprehended; and then all at once the woman may be attacked by a fit of apoplexy, or some great internal hemorrhage, which may quickly destroy her; or she may gradually become weaker and dropsical, and at length die. The symptoms will be diminished after each period of menstruation. The mucous discharge probably is, in some degree, useful: hence, if a check be given to it without employing any means of unloading the blood vessels, the violence of the symptoms generally increases.’

‘The objects in the treatment of this case are, to unload the vessels, by removing at once a large quantity of blood: to prevent its too quick formation in future; to restore, if possible, the liver to a healthy state: afterwards, to moderate the vaginal discharge, or to diminish the inconveniences attending its continuance: and, lastly, to lay down proper rules for the patient’s conduct, in order to prevent a return of the symptoms.’—pp. 277—279.

It is unnecessary to give the details of practice, by which these intentions are to be answered.

Chapter 22d, and last in the volume is entitled “On the case of Transparent Mucous Discharge depending upon Debility.” This may be but a stage of the preceding affection. That is very apt to pass into this. This is easily explained. The plethora which produced the excessive discharge, and other derangements in the system, will be subdued at length, by its own effects, and the discharge come to be continued, by an action in the vessels of the vagina, which goes on independently of the original cause.

Mr Clarke here treats on the affection, as an original one, as an affection which belongs to a certain state of the system, instead of growing out of an opposite one. This chapter is a very valuable one. The views contained in it seem very correct, and there is a distinctness in the descriptions, which gives you a true

notion of the case. The individuals in whom this affection occurs, the habits, and local circumstances which may induce it, are first noticed. We find it in the debilitated, relaxed, dissipated; and sometimes in those who nurse too long. The quantity and quality of the fluid varies in different cases, a pain in the back is frequently experienced. The disease of the vagina however is as remarkable for its effects on the system generally, as for those manifested in itself. The following quotations are long, but they contain so good a description of the case that we are induced to make them.

‘The continued drain from the system increases the original weakness; and the quantity of blood remaining is by degrees so much reduced, that the surface of the body becomes every day paler, till at length the cutaneous vessels are completely emptied of their contents, and at this time the skin assumes an appearance resembling that of a dead body. The colour of the sebaceous glands of the skin is evident through the cuticle; so that to the paleness of the skin is superadded an appearance of yellowness, which is not the effect of absorption of bile, for the urine will be found clear and colourless, and the tunica sclerotica of the eye will retain its pearl-coloured appearance. The exact balance between the secreting arteries and the absorbents being destroyed, the cellular membrane becomes filled with fluid, and the integuments acquire a doughy look and feel. This fluid effused pervades the cells of the cellular membrane throughout the body; the legs and feet swell towards night, and in the morning this swelling subsides, and the face becomes puffed; a shortness of breathing succeeds, which is increased by the horizontal posture, and is rendered most distressing when the patient is going up an ascent, or endeavours to read aloud. Violent palpitations of the heart occasionally give the woman great uneasiness; and this symptom sometimes increases to so considerable a degree, that the action of the heart may be heard by a bystander. During the continuance of these palpitations, the patient becomes very faint, and often considers herself to be dying.*

‘The circulation in the extremities is very languid, and the hands and feet are almost always cold; the pulse is feeble, sometimes very quick. The digestive organs not only partake of the general debility, but have more than their proportion of weakness. The appetite for food is lost; the power of digestion is diminished; and from the spontaneous changes which the food undergoes in its pas-

* ‘The symptoms attending this case of vaginal discharge are admirably described by Hippocrates.

“Ὀδυνὴ ἔχει τὴν νεαίρην γαστέρα καὶ τὰς ἰξυὰς καὶ τὰς κενεώνας. Καὶ οἰδημάτα τῶν τε σκελεῶν καὶ τῶν χειρῶν, καὶ τὰ κοῖλα αἰσθάνεται καὶ οἱ ὀφθαλμοὶ ὕχρτοι, καὶ ἡ χροὶς ἐκτεραδής, καὶ λευκὴ γίνεταί· καὶ σκοτὰν πορεύονται ἀσθμαίνει.”

Περί γυναικείης φύσεως.

sage through the stomach and intestines, the patient becomes much annoyed by flatulence.

‘Bile is secreted very irregularly, and sometimes this secretion is suspended. Costiveness is a general attendant on this state of disease.—In the farther progress of the case, hectic fever comes on, the difficulty of breathing becomes more extreme, and the patient dies with the symptoms of water in the chest. Although these symptoms are of the most formidable kind, and threaten the life of the patient, they frequently yield to the employment of proper means, which must be directed with skill, pursued with energy, and continued with patience.’—pp. 285—288.

The treatment of this case need not detain us long. Changes are to be made in residence and habits. Exercise forms a most essential part of the treatment. This must not be trusted to chance. It must be an affair of system. It must not be trusted to inclination, but be made a part of medical prescription, and pursued as such. The diet deserves attention. The food should be at first very light, and changed for a fuller one as convalescence advances. Light vegetable tonics should be first employed. Chalybeates and other mineral tonics will follow. The bowels will require assistance, and the pil. ex aloë cum magnesia, or the pil. gambog. compos. of the Lond. pharm. are recommended by the author. For the disturbance of the liver, the blue pill occasionally at night, with Rhubarb in the morning, may be useful. Injections of astringents should be thrown into the vagina, three or four times daily. Cold sea bathing and the shower bath are very useful. If the cold water disagree the temperature may be raised to 60° or 70°.

THE SECOND PART of Mr Clarke’s observations, contains three chapters. The first chapter is on *white mucous discharge*: The second on *watery discharge*; the third on *purulent discharge*.

White mucous discharge.—This has already been defined. It is furnished from the glands in the cervix uteri, and from the narrow limits of the part that supplies it, its quantity is small. In the healthy state of the cervix, and where no disease in a neighbouring part exists, which may excite the glands of the cervix, these glands hardly seem to perform any function except during pregnancy. During pregnancy they secrete a peculiar substance which closes or fills up accurately the os uteri. This substance differs from the *white mucous discharge* now under notice.

“A morbid state of the glands of the cervix of the uterus probably gives rise to this discharge; at least the cases in which it comes away are those in which the symptoms are referred to this

part; and when pressure is made upon it, the woman complains of considerable pain." *

‘Upon a reference to the above definition. it will be seen that the discharge is easily washed from the finger after an examination, and it is capable of being diffused through water, rendering it turbid. To all these circumstances attention must be paid. The investigation of the discharge must be made when the patient has remained quiet for some time, in order to draw a just conclusion from the appearances; for it is to be observed, that even the *transparent* mucous of the vagina, when secreted in sufficient quantity to run down over the labia, (which have some motion upon each other in the act of walking,) becomes also opaque and white. This change is attributable to the entanglement of air with the mucus. A similar circumstance may be observed in the angles of the mouth of hasty speakers, from the saliva entangling small bubbles of air. These have the appearance of whiteness; but if suffered to remain at rest, the air will be disengaged, and the saliva will regain its transparency. Such a mixture of mucous and air will render the water turbid, with which it may be combined: and this forms a distinguishing mark between it and the white mucous discharge which stands at the head of this chapter.

‘In many instances, the white mucous discharge is much thicker than cream, having the tenacity of glue; and, perhaps, this is the state in which it comes away from the cervix uteri. This corresponds with the mucus which is separated from the cervix uteri at the commencement of labour, usually when the white opaque mucus possesses the tenacity just mentioned it does not flow spontaneously, but it remains in the vagina, either until the exertions employed to empty the rectum squeeze out, at the same time, the contents of the vagina; or, perhaps, by remaining in the vagina, it may, by mixing with the mucus of that part, become attenuated.’ pp. 6-8.

Women are most liable to the white opaque discharge between the age of twenty, and the period at which the menses cease. What connection this state of the glands of the cervix, may have with the formidable diseases of which the cervix is occasionally the seat, Mr C. is not prepared to say. He is disposed to think that such a connection exists. Of the symptoms accompanying the white mucous discharge, we quote the following:

‘In the greater number of cases of white mucous discharge few symptoms are produced; but this is not always the case; the patient being attacked by an uneasy sensation in the back and lowest part of the abdomen, which gradually becomes converted into pain. The pain is increased by whatever tends to call the neighbouring parts into action, such as riding; or, by whatever produces pressure upon the part affected. In this way the passage of a hard and large

portion of fæces causes much distress ; for, not only are the blood-vessels filled in the act of expulsion, but, during the evacuation, constant, and sometimes considerable pressure is made upon the cervix of the uterus ; and if the stool be examined afterwards, a quantity of the white mucus will be found clinging to it, which the patient, unless she be very attentive, is apt to consider has passed from the bowels ; but in very many cases, when care has been taken to ascertain this fact, it has been demonstrated that no part of such mucus has escaped from the anus. Irritation about the rectum is occasionally an attendant upon the complaint, but not so frequently as irritability of the bladder. The close connection between the neck of the bladder and the neck of the uterus will account for this, independently of the sympathy which is known to exist between these parts. The desire to make water frequently, it must be observed, is also an attendant upon the early stages of pregnancy ; in which state the glands of the cervix of the uterus undergo a change of action, and the symptom ceases so soon as this part becomes quiet again ; that is to say, at the end of the eighth or tenth week, at which time the cervix of the uterus is perfectly blocked up, the quantity of the gelatinous mucous not increasing after that period.' p. 9-11.

This complaint rarely affects the general health. The menstruation is seldom affected. In some cases dysmenorrhœa has been present.

' Where an examination per vaginam has been made, the external parts and the canal of the vagina have not possessed a more than ordinary degree of sensibility, but upon the finger reaching the cervix uteri the patient has complained of pain, and the uneasiness has been compared to that which has been experienced upon the passage of an evacuation from the rectum ; pressure in both cases being the cause of the pain. There is, however, no alteration of structure in the part ; no thickening, no peculiar enlargement of the os uteri, no breach of surface ; the portion of the vagina which is reflected over the cervix uteri possessing its usual polished and smooth state.' p. 12.

A case follows. In some cases the increased action of the neighbouring parts is excited, and co-exists with the disease under consideration. A case of this kind follows, in which an encysted *tumour*, insensible, of the size of pigeon's egg, containing a fluid, was found in the vagina. The tumour was removed. Great hemorrhage occurred, the discharge ceased, and the tenderness of the cervix subsided. At page twenty-one, a case is related in which the constitution sympathized very strongly with the local disease. The constitutional symptoms went off with the subsidence of the local complaint in the cervix. The sympathetic affection in this case was strictly febrile.

The treatment of the complaint consists in local or general bleeding according to the severity of the symptoms, and the repetition of which is to be regulated by circumstances. The warm hip bath is useful. Laxatives are to be employed as required, and remedies which determine to the skin, should be given at night if restlessness and dry surface indicate their use. Strangury will be best treated by opiates. A full dose is often necessary, and 60 to 80 drops of laudanum may answer. The bladder requires very particular attention. If it be incapable of evacuating its contents, the catheter, must be used. If we neglect its use, and trust to diuretics, we shall in the first place most probably fail in affording relief, and inflammation of the bladder from over distention, may be added to the other evils of the case.

The disease of the cervix uteri accompanied by white mucous discharge may be confounded with *inflammation of the substance of the unimpregnated uterus*. In the latter disease, 'there will be found not only the pain arising from local inflammatory action, which is of course *permanent*, but also *occasional* pains which come on and retire after the manner of early labour pains. Besides, a milky discharge from the vagina, does not accompany inflammation of the substance of the uterus, in which complaint pressure above the pubes greatly aggravates the pain.' Mr C. goes on with the history of inflammation of the uterus, and in the course of the chapter notices very distinctly one of the disturbances of the catamenial function which may either be caused by, or produce inflammation of the uterus; viz. amenorrhœa. A good part of the chapter is occupied with this latter subject, and his views respecting it are very sound. He shews how useless, and injurious, is the treatment of amenorrhœa, which consists in the use of the class of remedies called emenagogues, and which obtained their name from a supposed specific operation upon the uterus. The causes of amenorrhœa are very rarely local only, and if it have been produced by some sudden cause, its continuance for the most part, is connected with, and dependant on a general disturbance of the system. It may be that the amenorrhœa which was originally induced suddenly, or when the individual was not apparently out of health, has been the cause of the general disturbance alluded to. But it now exists as an effect, and the only rational method of treatment consists in the use of those means which will restore general health. When this is accomplished, we may find the uterine function return in the progress of convalescence, or we may promote its re-establishment by the use of those remedies, which by stimulating organs in the neighbourhood of the uterus, excite this latter organ. We cannot follow the author through this useful discussion, nor enter into his de-

tails of treatment. He returns to the subject of the inflammation of the cervix uteri at the 51st page, and we make the following extracts :

‘These cases occur frequently in those habits, in which the blood is distributed through the different parts of the body very unequally, and in such cases it will generally be found that the system is unusually weak.’ p. 51.

‘It will accordingly be right, whenever inflammation of the cervix of the uterus occurs in such a frame, to endeavour to invigorate the system, and to equalize the balance of the circulation : an object frequently attainable by the exhibition of tonics, amongst which, the Peruvian bark and some preparations of iron, are the most serviceable. Of the former, the decoctum cinchonæ ; of the latter, the tinctura ferri muriatis, will generally best fulfil the intentions of the practitioner.’

‘In conclusion it must be observed, that a great point is gained in ascertaining the true nature of this disease, of which the milky discharge is symptomatic ; for thereby the physician or surgeon is led to direct such measures as may tend to remove its cause, instead of those astringents too often employed in such cases ; besides which it should be recollected that the cervix of the uterus is the seat of the disease ; that the cervix of the uterus is the most sensible part of the whole viscus ; and that it is the cervix of the uterus which carcinoma always selects as its point of attack. Surely, then, it is not too much to apprehend that slow inflammation in the glands, seated in this part, may lay the foundation for the commencement of carcinoma ; or, perhaps, for other alterations of structure in its neighbourhood. On all of these accounts, it is prudent and desirable to endeavour to remove as quickly as possible any of its diseases, but especially one in its own nature so important as inflammation.’ pp. 52, 53, 54.

Chapter II.—Watery Discharge.

THIS discharge resembles clear water, having no colour, and contains but little, and at times no glutinous matter at all. Under this head, are comprehended by Mr C. three diseases :

Cauliflower-excrescence of the os uteri.

Hydatids of the uterus.

The oozing excrescence of the Labia.

Cauliflower-excrescence.—This has its name from its resemblance to the upper surface of the cauliflower, or head of broccoli. The granules are covered by a very delicate membrane, and from this is secreted the aqueous fluid, which attends the disease. The tumour sometimes acquires so great size as to fill the whole of the vagina, and even protrude between the labia. The colour when seen as in the last case, may be called a bright

flesh colour. Florid, red blood, flows from the surface, when the membrane is broken or injured, and this at times spontaneously occurs from unusual excitement of the circulation. The tumour is insensible, and is confined to the surface of the os uteri alone. Its growth is rapid in proportion as the vagina is relaxed or dilatable. In those who have had many children, it quickly increases in size; in those who have not, its progress is checked by the unyielding walls of the vagina. When it protrudes from the labia it produces ulceration by pressure on neighbouring parts. Its cause is unknown. Mr C. has never known it occur earlier than the 20th year. He is disposed to think it is made up of a congeries of minute arteries. The tumour bears a very striking resemblance in structure to the placenta. There are two circumstances respecting this disease which deserve notice. The first is the excessive watery discharge which attends it. The second is the disappearance of the tumour after death. Notwithstanding the size of the tumour during life, filling, and it may be protruding from the vagina, after death it is not to be found. Nothing is then discoverable but irregularly shaped flocculent portions of matter, which arise from either the whole, or a part only of the circle of the os uteri. The explanation is that the blood which filled the minute vessels of the tumour, and which gave it bulk, oozes out after death, and the vessels are left empty and filamentous.

Mr C. once succeeded in getting a mass of the tumour of its natural size, and from this had an engraving made.

Symptoms of Cauliflower excrescence of the Os Uteri.

‘One of the first notices of this disorder is in the patient finding the parts more moist than usual; little attention, however, is paid to this circumstance, till the quantity of the discharge becoming more considerable, the patient is obliged to employ some means of absorbing it, and resorts, perhaps, to the more abundant use of cold water, or to the usual family receipt of isinglass and milk. Still the discharge becomes more abundant; but being unattended by pain or by fœtor, the complaint is neglected, until at length a quantity of blood comes away with it, or the patient finds that the colour of her cheeks is fading, or the strength of her frame diminishing; then all at once she takes alarm, and flies to medical assistance. Perhaps the entire absence of pain, and of other symptoms, leading the woman to treat the disease lightly at first, is the reason why so few opportunities are afforded of examining the tumour when of a small size. The quantity of the discharge is in proportion to the superficies of the tumour, and the action of the blood vessels of the uterus and neighbouring parts: it may only be in quantity sufficient to render the woman’s person uncomfortable, or it may require the change of twenty or thirty napkins daily. A small blood

vessel now and then allows some of its contents to ooze out, which, mixing with the discharge, gives a shade of colour to it, or perhaps a faintish odour; but when no blood is mixed with the discharge, or when the quantity of the watery discharge is so great as to run off as fast as it is secreted, there is little or no smell attached to it. If the patient should be a married woman, living with her husband, it will be found that hemorrhage always succeeds intercourse; and, indeed, in some instances the slightest exertion of the body, coughing, sneezing, or straining when at stool, will produce a discharge of blood from the blood-vessels of the tumour, which sometimes becomes very profuse. When a large quantity of blood has been thus lost, it is frequently observed, that the watery discharge diminishes, the distension of the vessels of the tumour being taken off. As the disease proceeds, the system becomes weakened from loss of blood, and the stomach partakes of this weakness. The digestion is performed imperfectly, spontaneous changes take place in the food, and air is either thrown up in frequent eructations, or the belly becomes tympanitic. In some measure the disturbance of the stomach may be the effect of sympathy of that organ with the uterus, but the symptoms very much resemble those met with after large hemorrhages. Hysterical symptoms are produced, and all that host of inexplicable symptoms which accompany cases of impaired digestion, increasing the patient's stock of bodily and mental misery. As the weakness increases, the action of the absorbent vessels diminishes, and depositions of fluid form in different parts of the body, obeying the laws of gravitation, producing œdema of the feet at night, and puffiness of the face and eyelids in the morning. the particular effects produced by such accumulations of fluid being regulated by their quantities, and determined by the situations in which they are deposited. So that the patient may be destroyed by water in the chest long before she would have been exhausted by the disease itself. In some cases an alarming hemorrhage takes place, producing a state of syncope, from which the patient may not rally.' pp. 82-85.

Treatment of the Cauliflower-excrecence.—This consists in local bloodletting by cupping. The quantity of blood taken may be from 8 to 16 ounces, according to circumstances. Its repetition will be useful according to the effects of the first, as they regard increase of tumour, of discharge, and state of the strength. The bleeding is not to be continued in great debility, nor is it to be attempted where the ancles have swollen from general exhaustion. The diet must be strictly antiphlogistic. The bowels are to be regularly evacuated. The tumour may be kept in check by the free application of cold water to the region of the pelvis, externally, and by throwing it into the vagina. The recumbent posture is very important. The quantity of blood in the tumour is less in this position than in any other. The mass of course

increases more slowly, and the discharge is comparatively small. Astringent injections are fully recommended, and various kinds named. They are to be strong. When the tumour is small astringents are to be injected. Great care should be taken not to wound the external membrane of the tumour by the pipe. A very slight injury will do this, and hemorrhage more or less alarming or injurious will be the consequence. When the tumour fills the vagina, let the astringent liquids be *poured* into the canal. When it protrudes, apply pledgets dipped into the lotion, to the protruding mass. If we fail in these remedies, or the patient is sinking, apply a ligature round its neck or rather base, as high up as possible without including the os uteri, and with great care lest hemorrhage be produced. In tying avoid drawing so tight as to cut off the tumour, or great hemorrhage may follow. The blood will coagulate above the ligature under smaller force, and the risk of hemorrhage be avoided. As soon as the tumour comes away, the astringent injections are at once to be resorted to again, and continued till all appearance of remaining disease goes off.

Hydatids of the Uterus.—One of the symptoms of this affection of the uterus is watery discharge. This symptom will assist us in distinguishing the disease from those with which it might be confounded. It is distinguished from the last described, because there is no tumour arising from the os uteri, and more or less filling the vagina. It is farther distinguished by the manner in which the water comes away. In the Cauliflower excrescence the drain is constant. In the Hydatid affection, the watery discharge is not constant; the water coming away on the rupture of the vesicle or vesicles, and not furnished from its outer surface. From sudden violence, as coughing or sneezing, rupture may take place, and the water be unexpectedly discharged. This is not the case with the cauliflower tumour. From pregnancy and fleshy tubercles it is distinguished, because a watery discharge is not an attendant on them, and pregnancy has other symptoms which mark it. Under the distention of the increasing mass, the uterus will at length contract, and a process resembling labour come on, and the hydatids be expelled. Hemorrhage of a very severe character will be its consequence. The hemorrhage is great because the cavity of the uterus has been filled by the hydatids, and a vascular connection has existed between the two in every part. Many vessels are thus ruptured, and a hemorrhage much exceeding that from a separated placenta, in as much as the last has but a limited connection with the uterine cavity, takes place. The most vigorous use of all the means for checking uterine hemorrhage is at once to be made

and continued till the bleeding is checked. If the hemorrhage precede the discharge of the hydatids, and the size of the uterus admit the introduction of the hand for the separation and removal of the mass, the hand must be introduced. If it be of the size which exists between the sixth and seventh month of pregnancy, the hand may be employed. If not so much, two or three fingers may be introduced through the os uteri, with advantage. The caution imposed here is, not to attempt to overcome resistance by force. If we neglect this, we may lacerate the womb or its mouth, and a most dangerous lesion be superadded to the evil already existing or threatened. At times a single vesicle only is formed in the uterine cavity. This will burst, and after the water is discharged, the vesicle itself will come away without any accompanying or succeeding bad symptoms. This last form of the disease is very rare. In the course of this part of the chapter Mr C. makes some useful remarks on dysmenorrhœa.

‘Of the Purulent Discharge.’

Pus is sometimes discharged alone from the female organs, sometimes it is mixed with blood. The former is most frequently the case when the mucous membrane of the parts is the seat of inflammation alone. The latter occurs when the pus is secreted by an ulcerating surface. Mr C. having offered these distinctions goes on ‘to describe first the cases of purulent discharge appearing to arise from the mucous membranes of the female organs of generation in a state of inflammation, and afterwards to point out those other cases in which the pus is secreted by an ulcerating surface, it being occasionally mixed with blood.’ p. 147.

‘On Inflammation of the Mucous Membrane of the Uterus, terminating in Secretion of Pus.’

The following is a description of the disease.

‘In this case, when the pus secreted can readily find its way into the vagina, few symptoms will be found to exist, excepting heat and uneasiness experienced in these passages; and, as the fluid escapes out of the external parts, it may be doubtful whether it was secreted by the vagina or by the uterus.

‘In some cases, however, the vagina is wholly free from inflammation. But the patient is attacked by pain of an acute kind in the back, and at the bottom of the abdomen. The constancy of this pain is as great as its severity; and its continuance inducing the practitioner to make an examination *per vaginam*, he finds the uterus tender to the touch, and its bulk increased, resembling the viscus when in a state of impregnation; the parietes of the uterus gradually yielding, its bulk becomes very considerable. Still, however, from

the unusual occurrence of the disease, the true nature of the case is involved in conjecture, until the occurrence of another symptom, which unravels the mystery. Suddenly, a burst takes place; the patient being sensible that something has given way within her, and a large quantity of pus of a very offensive odour escapes, when the symptoms are immediately relieved. For some days small quantities of pus are evacuated, and at length the patient returns to health; and if an examination of the uterus be made after the discharge of the matter, it will be found greatly reduced in the bulk.' pp. 151, 152.

Cases follow, in which the pus was retained in the cavity of the uterus by a contraction of the cervix uteri alone, and one in which the matter was spontaneously discharged through the rectum.—The following extracts contain the treatment recommended by the author.

‘The uneasiness attending this disease, the detection of an enlarged state of the uterus, together with the increased sensibility of the part, will naturally lead to the employment of those remedies which are found useful in removing inflammation: and this mode of treatment will be equally applicable in restraining the progress of carcinoma, as in alleviating or removing the symptoms of this disease. If the habit of the patient be plethoric, twelve or fourteen ounces of blood may be taken by cupping glasses from the region of the sacrum; or, under any state of constitution, ten or fourteen leeches may be applied to the groins, once in a week or ten days. The use of the hip-bath will be a great source of comfort to the patient, whose hips may be immersed in tepid water for fifteen or twenty minutes every night and morning; at which time some warm water may be thrown into the vagina by a syringe. Opium may be exhibited in sufficient quantity to diminish the uneasiness of the patient; to counteract the astringent effect of which, as well as to lessen inflammatory action, purgatives must be occasionally exhibited; unless, indeed, sufficient relief can be procured by the administration of hyoscyamus or hemlock, which possess the advantage of not inducing constipation. When the uterus has acquired the size which it is found to possess at the fourth month of pregnancy, it is to be presumed that the disease is not carcinoma, strictly so called; no tumour of this character, which the author has seen, having acquired this size; that is to say, ulceration does not take place in such tumours. A reference to a great number of preparations, illustrative of this disease, demonstrates the truth of this assertion.

‘The rapidity of the enlargement of the uterus in cases of collection of pus in the cavity of the uterus, comparatively with that of fleshy tubercle, may throw some light upon the nature of the case; and if there is reason to believe that the uterus is distended by pus, it may be advisable gently to introduce the extremity of a bougie, or of a male catheter, into the os uteri, and to pass it onwards, until it has reached the cavity of the uterus. By such a mode of pro-

ceeding no harm can be done, and an opportunity may be given to the patient to be quickly freed of her disease.' pp. 161-163.

'*Inflammation of the Mucous Membrane of the Vagina.*'

'*Abscess of the Vagina.*'—Of this last disease we extract a case.

'In the year 1818, a young lady, recently married, laboured under an offensive purulent discharge, not constant, but occasional, and which always followed communication with her husband; so that the case was involved in some obscurity. A tenderness of the surrounding parts was present, and the general health was a good deal impaired. It was ascertained, that, although some uneasiness attended connection, the patient was rendered more comfortable for several days afterwards.

'The lady (who lived in the country) came to London, and placed herself under the care of the author. Mr Cline also saw the patient two or three times in consultation. On examination, a bag distended with fluid could be felt behind the vagina, and the lower part of this being pressed upon, a highly offensive purulent discharge of a greenish colour came from the upper part the vagina. The pressure being continued, all the matter escaped, and the bag could be no longer felt. Thus it was satisfactorily explained why the symptoms were diminished by the coition, and how this produced an evacuation of the contents of the bag.

'It was not judged proper to resort to any chirurgical operation: a plan of treatment was directed, having for its intention the improvement of the health of the patient, and the prevention of accumulation in the cavity of the abscess.

'The patient returned into the country; the powers of her constitution were restored; the discharge diminished, and ceased to be offensive; pregnancy took place, and the patient was delivered prematurely, in consequence of some exertion which she had undergone' pp. 179-181.

Mr Clarke under this head notices the specific disease to which the vagina is liable, and the common inflammation of the part.

'*On Ulceration attacking the os uteri and the cervix uteri.*'

'It has been too much the custom with practitioners to consider all the different kinds of ulceration, taking place in these parts, as terminations of the disease called scirrhus or carcinoma. This opinion has been strengthened by the fatal termination of such ulcerations. But there are two varieties of ulceration attacking these parts, which, although both fatal in their consequences, produce symptoms differing very much from each other. In the second edition of Dr Baillie's work on Morbid Anatomy, a disease called Malignant Ulcer of the Uterus is described, and Dr Baillie has the candour to state that, in his first edition, he confounded this disease with

scirrhus enlargement, considering these as varieties of the same complaint.

‘It has been the custom of the author during a period of sixteen years as a teacher, to describe two different kinds of ulceration of the uterus, both of which may be considered as malign; the one under the denomination of the corroding ulcer of the os uteri, the other under the name of carcinomatous ulcer. These will be separately considered.’ pp. 183, 184.

This disease occurs most frequent between the 40th and 55th year.

‘In the corroding ulcer of the os uteri, the membrane which covers it first takes on disease, and very shortly afterwards the ulcer extends to the whole circumference of the opening, and to the parts immediately beneath it; so that the natural shape of the os uteri is destroyed. Thence the ulceration proceeds to the cervix, and consumes it; so that, if the patient should die in this stage of the disease, nothing will be found, after death, but the body and the fundus of the uterus. Sometimes the disease does not stop here, but, before the patient is destroyed, the absorbents employed in the process of ulceration will have taken up nearly the whole body of the uterus, so that very little more than the fundus will remain.

‘In the author’s collection, there are three preparations showing the disease in all of these different stages.

‘This does not happen in the carcinomatous ulcer, by which the patient is worn out before there is time for such a degree of absorption to have happened. If an examination be made per vaginam, the breach of surface may be readily distinguished, and the extent of the disease ascertained; but no hardness of the parts will be present, no thickening, no deposit of new matter.

‘If the body of the patient be inspected after death, there will appear abundant evidences of the destructive process, but no hardness, no thickening, no deposit of new matter; so that, during life, and after death, there is a tangible and visible difference between the corroding ulcer, and the ulceration of cancer.—A manifest distinction between these two diseases will be met with also in the

Symptoms.

From this head the following extracts are offered.

‘The menstruous secretion, it has been already said, has ceased; in its stead a yellowish discharge escapes, perhaps trifling in quantity, and now and then mixed with a streak of blood; by degrees the sense of warmth is converted into a glowing heat, affecting the region of the uterus; and it is by no means uncommon with patients to state, that they feel “as if a hot coal was within them.”

‘As this sensation of heat increases, so the quantity of the discharge increases, the ulceration extending more rapidly.

‘The perpetual drain necessarily diminishes the quantity of circulating blood; in consequence of which the countenance becomes pallid, and weakness of the whole system is produced.’

‘In the corroding ulcer, lancinating pain forms no part of the symptoms.’

‘It appears, then, that pain of an intense and acute kind is not a character of the corroding ulcer of the os uteri.

‘When a finger, introduced into the vagina, is made to pass over the ulceration, the patient does not complain of pain; she does not suddenly shrink from pressure, as when carcinomatous ulceration is present: but if asked what sensation she experiences, she will commonly reply, that she has a sense of soreness.’ pp. 188–192.

The treatment of this disease regards its forming stage, and its complete formation. It should begin with the earliest intimation of uneasiness in the uterine region occurring upon or after the cessation of the catamenia, which uneasiness can be referred to inflammatory state of the os uteri. The treatment should be strictly antiphlogistic. Local bleeding by cupping forms an essential part of it in the early stages of the disease, and this must be repeated as circumstances may require. Diet and exposure to cold require much caution. In the progress of the disease, means which will insure cleanliness, must be resorted to, ‘and both in the early and in the latter stage of the disease, the patient should remain constantly in the horizontal posture, if she sets any value upon the continuance of life; and the necessity of attending to this latter direction should be enforced in the strongest manner.’ p. 200.

Ulcerated carcinoma of the rectum, ulcerated carcinoma of the uterus.—Ulceration is a stage in the progress of the carcinomatous tumour of the rectum and uterus, which tumour was particularly noticed in the analysis of the first part of Mr Clarke’s observations. This stage of this fatal malady will not detain us. The patient sinks under pain, hemorrhage, and discharge, and at length dies, presenting lesions in the structure of the organs concerned, greater or less in some proportion to the violence and especially to the continuance of the disease. Both of these last are in some measure influenced by the treatment, and the habits of the patient. If the strictest antiphlogistic course be pursued, and opiates properly exhibited, the suffering may be less, and life protracted. The disease however will advance under all known means, and death will only come later because a temporary check has been placed to a more rapid progress of the disease. We shall not make an analysis of these chapters, but devote the room that remains to this article to a single extract.

‘Of all the modes of applying water to sores at the upper part of the vagina, none is so effectual as the use of the hip bath; in the employment of which, the water is brought into contact with the sore without any risk of injuring the latter. By these means, the object of maintaining cleanliness is not only obtained, but a soothing application is made to an irritable surface; the careful injection of warm water into the vagina, by a syringe, or the agitation of the water by the hand, will render it more likely to remove any portions of co-agulating lymph or thickened matter which may adhere to the inside of the vagina. The heat of the water employed should depend upon the feelings of the patient in some measure; but, generally speaking, it may vary from about 86 deg. to 94 deg. Where the patient is too weak to bear the exertion of being placed in a hip-bath, her hips may be brought over the edge of the bed, and warm water may be carefully injected into the vagina by a female syringe. The quantity of the discharge is frequently increased by the means above-mentioned, but the comfort which the patient will derive from it will abundantly compensate her for any debility which may be produced by the remedy; and excruciating attacks of pain are sometimes rendered very sufferable by a frequent recurrence to it. Strong decoction of carrots, sometimes used for the same purpose, has the happiest effects. Warm water may also be made the vehicle for a variety of sedative applications, which are found by experience to tranquillize all irritable sores; and, in some, to expedite the healing process. Amongst the different applications for this purpose, the *extractum conii*, or *extractum hyoscyami*, may be mentioned, either of which may be employed in the proportion of about three or four drachms to a pint of water. Solutions of opium, or of extract of poppy, may also be used; of the former, two drachms; of the latter, half an ounce, may be dissolved in each pint of water. Starch, or mucilage of quince-seed, form good menstrua for these applications; their adhesive property enabling them to cling to surfaces to which they are applied. Three or four ounces of either of these fluids, impregnated with sedative substances, may be thrown into the rectum in those cases where relief is not obtained by their application to the vagina; but when opium is used for this purpose, the practitioner should be very careful to watch over its effects, as it has sometimes happened that unpleasant consequences have arisen from the application of this drug to the rectum such as, vomiting, syncope, cold extremities, and irregularity of the circulation. The action of the absorbents of the rectum is, in all probability, in these cases, increased by the inflammatory process which exists in the vicinity; besides which, the action of the rectum itself is temporarily taken off, so that the enema will probably be retained during a considerable length of time. Plasters and liniments, into the composition of which, opium enters largely, will sometimes be found serviceable in allaying pain, and are useful auxiliaries in a disease in which all the resources of the practitioner may be required to diminish the sufferings of the patient.’ pp. 226-229.

Mr Clarke's reputation as an observer and historian of diseases, depends in no degree on what we might say, and we have refrained carefully from the expression of vain praise. Our object has been to offer our readers a fair analysis of a work which deserves their careful study. M.

ARTICLE VI.

A Comparative View of the Sensorial and Nervous Systems in Man and Animals. By JOHN C. WARREN, M. D. Professor of Anatomy and Surgery in the University of Cambridge. Boston: Printed by JOSEPH B. INGRAHAM, 1822. 8vo. pp. 152.

[From the American Medical Recorder, for January 1823.]

WHILE the comparative anatomists of Europe have been acquiring distinguished honours for themselves, and adding to the renown of their respective countries by their splendid and important discoveries, the anatomists of this country have devoted their attention almost exclusively to the human system, regardless, in a great measure, of the different tribes of subordinate living beings, whose complex and diversified organization constitutes the legitimate object of comparative anatomy.

To this general remark, however, we feel pleasure in stating, that there are some honourable exceptions, and we have good reason to believe that this department of science is beginning to be more properly appreciated, and requires only the fostering aid of a liberal patronage to enlist in its pursuit the active and enterprising genius of our countrymen.

We may form some estimate of the importance of this study, when we reflect, that the facts and principles developed and established by its prosecution have contributed, more than almost any other researches, to illustrate and confirm the obscure and unsettled doctrines of physiology.

The knowledge of our own structure and its laws, must necessarily be promoted and improved by investigating attentively the organization, functions, and faculties of different brute animals, each peculiar in its formation, and yet all differing from ourselves.

Comparative anatomy, including its physiology, whether considered as the only true foundation on which we can classify and arrange all animated nature, or as the analysis which nature herself has made of different living beings, we regard of sufficient

importance to constitute an indispensable part of the education of every medical student.

It is important, in the prosecution of every scientific pursuit, to adopt, when practicable, the analytical mode of research. In human physiology, however, which has always been justly regarded as a fundamental branch of medical science, analytical investigation cannot be directly applied. This will appear sufficiently evident, when we recollect, that the human system is composed of numerous diversified organs, all intimately connected, yet each having a distinct function to perform ; and that the vital principle, which gives to this body its peculiarity, which separates it from dead matter, and which preserves it from the influence of the various active chemical agents by which it is surrounded, results from, or at least is dependent on, the entire and perfect state of this organization.

From this view, it must appear obvious, that any attempt to investigate the phenomena of life by the usual analytical mode of research, must eventuate in total disappointment ; for the moment we should separate the several organs which enter into the composition of a living body, that instant the phenomena of life would cease ; because, as we have already remarked, these phenomena absolutely depend upon the perfect state and combined action of the several organs.

This analysis, however, which we cannot apply to any single individual, Nature has performed for us, and we are only required to examine, compare, and draw our conclusions.

Nature, ever abundant and inexhaustible in the variety of her productions, presents to us, in the formation of the inferior orders of animated beings, every diversity of form and arrangement of organs necessary for an entire analysis of the most perfect and complex organization, and its vital phenomena.

Regarded in this light, comparative anatomy and physiology are of such obvious importance, that we cannot but view with regret and astonishment the apathy which prevails among the trustees of the several medical institutions in the United States, relative to this branch of medical education.

To the zealous labours of the comparative anatomists of Europe, we are indebted for some of the most superb works of modern science. Their number, however, and the splendid and expensive manner in which they have been presented to the public, preclude the students of anatomy, in this country, from having that general access to them, which is required for a clear and comprehensive view of the subject. They must therefore feel deeply obliged to Dr Warren, for the present publication, which contains a condensation of the labours of others on the

‘ comparative view of the sensorial and nervous systems of man and animals,’ illustrated by facts and observations of his own. Having made these general observations, we will examine more in detail, though very cursorily, Dr Warren’s book. The preliminary part of this work is devoted to the consideration of the zoological arrangement. After examining somewhat in detail the different systems which have been proposed, the Doctor adopts ‘ that of Linnæus, improved by Cuvier and others.’

‘ According to this plan animals are separated into two grand divisions, *Vertebral* and *Invertebral*. The vertebral are, first, *Mammalia*; second, *Aves, Birds*; third, *Reptiles, Repentes*; fourth, *Pisces, Fishes*.’ These classes are generally known and distinguished from each other.

‘ The Invertebral animals are first, *Mollusca*, so called from the soft consistence of their bodies; although they have frequently a shell or firm mantle. Second, *Crustacea*, covered with a thin calcareous crust. Third, *Insecta*. Fourth, *Vermes*. The red-blooded worms are the only invertebral animals with red blood. Their structure is more complicated than that of worms, generated in animals or epizoary worms; the latter are therefore not included in the class, Worms; but in that of Zoophytes. Fifth, *Zoophytes*, so called from forming an intermediary structure to animals and plants. They differ, however, essentially from the latter, and approach the former in generally having the power of locomotion.’

We pass over the full and accurate view, which our author has given of the brain and nervous system, in all their variety of form and arrangement exhibited in the several species of these different classes, and only notice such parts of the work as are deserving of particular attention.

In presenting our readers with the following conclusions, which our author has deduced from this general comparative view, we believe, we not only consult their interest, but at the same time exhibit a pretty fair specimen of our author’s style of writing and manner of reasoning.

‘ In the first place, we are allowed, I think, to infer that the brain and nerves are not essentially connected in function; or at least, that this is true in regard to the function of the nerves. There appears to be no relative proportion in the magnitude of these organs in different animals. In man, and most of the mammalia, the bulk of the brain is considerable, compared to that of the nerves; while in reptiles and fishes the *nerves* may compare in size with those of the superior classes, but the brain is very small. The same is true in different orders of mammalia; in the horse, for example, the brain is small, the nerves of great size. Another fact bearing on this point is, that in the invertebral animals there is no proper brain: at least the organ we call by this name in the acephalous mollusca, crustacea, worms, and insects, differs greatly from the brain of the

vertebral animals, and is in truth little different from the ganglia. Yet in these animals the nerves are very distinct, and even in many, large in proportion to the other organs. Analogical reasoning is useful where we cannot resort to facts: but we should not have it applied too confidently, nor even without recollecting that the degree of belief due to it is lower than that belonging to fact.

‘*In the second place*, we may conclude that the brain is not the source of the muscular power. This conclusion is founded on a consideration of the disproportion in the size of this organ, to the muscular strength of various animals. In the horse, the brain, as just stated, is small, the muscular vigour great; in the great sea shark, *squalus maximus*, the brain, compared with the body, is near the smallest among the vertebral animals; while the strength of the animal is so great, that one of them has been known to drag a vessel of seventy tons, under full sail, against the wind.

‘*Third*. It seems probable that the muscular power does not take its motion from the nerves. The facts in support of this opinion are few in number, and the principal one is the non-existence of nerves in some animals capable of moving. In the gelatinous polypi and some other zoophytes, no nerves have been discovered, and we are, from their texture, led to believe it impossible they should have any such nerves as other animals; yet they move, some of them with considerable rapidity.

‘*Fourth*. Many of the facts tend to prove, that the nerves receive the impressions of objects made on the external senses, and that by them these impressions are transmitted to the brain. It is not intended here to involve the hypothesis, that perception in the brain is caused by any kind of movement in the matter of the nerve; all that we wish to say is, that when the nerve, expanded in an organ, is affected by objects to which the organ is susceptible; it is in consequence of this affection that the brain perceives, and that, without the continuity of nerve, the brain cannot perceive. This has been thought to be satisfactorily proved by the suspension of perception, consequent on the division of a nerve; but those who maintain the opposite doctrine, consider the division of a nerve so far to impair its perfection, as to render experiment uncertain.

‘If we look to comparative anatomy to determine these questions, we find that whenever an organ of sense is more than commonly developed, the nerve belonging to it is in the same degree developed in the organ. Further, that the size of the nerve before reaching the organ is always proportioned to the development of the nerve and organ; and that whenever a sense is wanting, the nerve usually going to the organ of that sense is also wanting. In birds the sense of sight being acute, the optic nerve is largely developed in the organ; the size of the organ, and the size of the nerve before reaching it, are considerable, and there is a ventricle connected with the nerve. We have before noticed the same fact in regard to the olfactory in some quadrupeds. Why should the optic nerve be of

large size between the brain and the eye; except to transmit to the brain the impressions received in the eye?

‘In the whale, the organ of smell is wanting; the nerve, sent to it in other mammalia, is also wanting.

‘In some birds, the organ of touch is placed at the extremity of the bill, and there is a correspondent arrangement of elegant nerves of the fifth pair. The same is true of certain quadrupeds, as the elephant, which has the sense of touch at the extremity of the trunk; and the *ornithoryncus paradoxus*, the duck-billed animal of New-Holland. In this singular creature, most of the qualities of a quadruped are united, with some of those of a bird; and, particularly, it has a bill like a duck, covered with a sensible membrane, which enables it to discover its food in the mud, where it could not employ the sense of sight; and the distribution of nerves accords with the peculiar situation of this sense. The manner in which the nerves act in transmitting impressions to the brain, or causing perceptions in this organ, is no more explained by comparative anatomy than by the numerous experiments and theories on nervous action; nor have we much reason to expect we shall ever be well acquainted with the functions of this part of the animal fabric; though Sir Everard Home seems to think his late discovery of the mucous matter, connecting the globules of nerves, will throw light on its mode of operation.

‘*Fifth.* The brain, the common centre for receiving the impressions transmitted by the nerves, and is therefore rightly called *sensorium commune*; and where there is not a proper brain, the ganglion, which supplies its place, performs the same office. In all animals with organs of external sense, the nerves belonging to these organs go from them to the brain. This is true, not only in the more perfect animals, it is so in the mollusca, crustacea, insects, and annelides: with the inconsiderable exception that, in some instances, the nerves of an organ of sense are connected with the brain, or substituted ganglion, through the medium of the collar, instead of being immediately so with the brain.

‘*Sixth.* This comparative view of the sensorial system does not seem to support the opinion, that the difference in the intellectual faculties of man and animals is to be explained by a difference in organization alone.’

We offer no apology for this long extract. The importance of the principles involved in these general deductions, their necessary connection with correct views of physiology, and their ultimate application to practice, must, we think, render them valuable to every reader. The question in relation to the *location* of mind and its faculties, with the numerous animal propensities, is handled in an able and luminous manner; and we think the zealous admirers of Dr Gall’s hypothesis, if they are open to conviction, will have their enthusiasm not a little abated, after perusing the facts which our author has adduced, and his clear

and candid reasoning on the subject. Although we have already quoted so largely, we must trespass still further on our readers' patience, while we present to them a small, but interesting portion of our author's labours on this particular point of inquiry.

'The authors of the craniological or physiognomical system,' says Dr Warren, 'seemed disposed to refer frequently to comparative anatomy, for the support of their doctrines; but so far as I have observed, there do not appear to be very good grounds for such a reference. If any animal be remarkable for a propensity, and exhibit a peculiarity in the form of the cranium, they connect these two facts together, and consider the peculiar part of the cranium, or of the corresponding brain, to be the seat of the propensity; and this they think certain, when such facts concur in regard to more than one kind of animal; and they believe that these facts tend to confirm the connection between similar appearances and propensities in the human species.

'One or two examples will be sufficient to show how far they are justified in their appeal to the anatomy of animals. The organ of *combativeness* or courage, is said to reside in the space between and behind the ears; that is, in the part which corresponds to the posterior inferior angle of the parietal bone, behind the mastoid process: and "courageous animals have the head between and behind the ears, large." Some of them, in truth, have the head large, but not the brain. The cavity of the cranium in the *lion* and in *large dogs*, is oblong, in a direction from before backwards; the skull is narrow at this part, and the appearance spoken of does not exist in the bones. In the skulls of two lions in my possession, and various large dogs, the cranium is more narrow at this part than in the skulls of *various monkeys*, and is not materially broader than in the sheep. In birds, the cranium of an owl is broader than that of an eagle. The great apparent breadth, in this part of the head of the lion, is produced by the enormous thickness of the temporal muscles, and when they are stripped off, the skull is seen to be actually narrow.

'The *organ of amativeness*, which Dr Gall formerly called organ of physical sensibility, is placed in the cerebellum, its region externally corresponding with the lowest posterior part of the os occipitis. An examination of this region in animals, remarkable for the propensity, does not exhibit a considerable development of the part. In the monkeys generally, it is much less developed than in man; and in the baboon, the most extraordinary of all animals for the propensity, it is in no way remarkable.

'Further, a comparison of the proportionate bulk of the cerebellum is still more unfavourable to this opinion; although Dr Spurzheim seems to consider this as one of his strongest positions; for the cerebella, he says, are always proportioned to the propensity; they are larger in men and males, than in women and females; and, on the whole, he concludes, "that this organ and its special faculty are fairly established." If the table of the cerebellum, before given, be

noticed, it will appear that the proportion of the cerebellum is, in many animals, greater than in the monkeys, and that precisely the same proportion exists in the baboon and in the horse: animals differing widely in the degree of this propensity.

‘On comparing the skulls of various birds, I have not been able to verify, in a distinct manner, the supposed situation of the *organ of ture*; and the remarks relating to some other parts of the structure of the brain, and to its organs in animals, have not appeared to be stated in such a form as to render it possible to determine their exactness.’

We cannot agree with our author, that ‘all the variations in the form and colour of man, are to be ascribed to the gradual operation of moral and physical causes, acting for a great length of time.’ We have felt no little interest in this question, and have read with considerable attention, all that has been advanced in its support, by Dr Smith, of Princeton, Mr Lawrence, in his lectures on physiology, and many others; but we think the powerful reasoning of Mr White, of Manchester, and Dr Caldwell, now Professor at Lexington, Kentucky, on the opposite side of the question, has not as yet been fairly met, and remains unrefuted. The plates we consider a valuable addition to the work; they are accurately delineated, neatly executed, and illustrate satisfactorily the variety of the nervous arrangement in the invertebral animals.

In conclusion, we have only to remark, that we consider Dr Warren’s work a valuable addition to the anatomical literature of our country, and it should be in the hands of every student of medicine.

B.

Analysis of Foreign Medical Journals,

WITH SELECTIONS.

285. LONDON MEDICAL AND PHYSICAL JOURNAL, NOV. 1822.

Art. I. *An Essay on Curvatures and Distortions of the Spine, and some other morbid derangements to which it is subject.* By R. W. BAMPFIELD, Esq. Surgeon, &c.

WE extract one of Mr Bampfield’s cases, which contains his method of treatment, and the result. Two other cases are reported in this paper in which the success of the practice, in respect to the *spinal disease*, was equally great. Before doing

this we cannot refrain from expressing our surprise that the late Mr Wilson's work on the same subject is not named by Mr B.

Frances Parker, aged four years, nine months, born of healthy parents, and one of six children, neither of whom presented the features of a scrofulous constitution, residing at No 3, Slade's-place, Blandford street, had been affected with the angular projection of the spine two years, when she was admitted a patient of the Mary-le-bone station of the Royal Metropolitan Infirmary. The projection had been formed in a gradual manner, one spinous process only having been first observed to protrude outwards; and, as this projection enlarged and increased, it became evident that other vertebræ above it, in the progressive course of time, were drawn out also. The projection comprehends three lower dorsal and four upper lumbar vertebræ. When the patient stands erect, the projection of the spinous process of the fourth lumbar vertebra is so much beyond that of the fifth, that it appears as if, at this point, the upper part of the spinal column were about to fall off from the part below it. From the spinous process of the ninth dorsal vertebra, which occupies its natural situation, the spinous processes of the seven vertebræ below it gradually incline outwards, till the line reaches the extremity of the spinous process of the fourth lumbar vertebra, which becomes the angular point, the base line of the triangle being formed by the lower surface of this vertebra. Between the spinous processes of the fourth and fifth lumbar vertebræ, there is a space in which the fore-finger may easily be pressed upon the interspinous ligament now elongated, although, when *in situ*, they nearly approximate. The transverse processes of three lumbar vertebræ are distinctly felt projecting on each side of the spinous processes, and, instead of these processes falling gracefully in between the muscles of the back, they elevate and stretch the integuments and muscles so as to form a bow or arc laterally, the chord line of which is formed by the transverse processes, on which, it may be imagined, the spinous process is raised as a perpendicular, dividing the arc into two equal parts. When the patient walked, which she could only do for a short time in a waddling gait, she evinced great weakness of the muscles of the back and of the muscles generally, for she always stooped forwards, and supported herself by placing both hands on her knees, so that the nates projected behind: the foot of the right leg bent inwards, and the flexor tendons of the same leg were contracted. In the attempts to walk she frequently fell down, or, from severe pains of the back, was obliged to lie down, even in the streets. The pains of the back, and of both knees (particularly of the right), sometimes made her scream, and often

disturbed and prevented sleep. Any sudden motion of the vertebræ induced smart pains of the back; dyspnœa ensued from very slight exertions; the appetite was bad, and the body weak and emaciated. The patient had submitted to various plans of treatment, suggested by different professional advisers, and, from January 1821, had been subjected to the dorsal horizontal position and the successive application of blisters, which, without producing any benefit or checking the progress of the complaint, had ulcerated the skin so extensively, and produced such large crops of phlyzacious pustules, that, on my first visit in May, I declined the case, until the eruptions had ceased and the ulcers had healed.

‘On the 22d of September, 1821, the treatment commenced. The patient was laid on two pillows in the facial horizontal position; the pillows were separated at a little distance, opposite to the projecting vertebræ; the body was then extended, and the spinous processes gently pressed inwards; a compress, pad, and shield, were then applied over the projecting vertebræ, and retained there by a long bandage. Her mother was enjoined to confine her to the position above mentioned. In the night however, she turned on her back, and a crust of bread having been accidentally insinuated between the compress and the most projecting point of the vertebra, considerable pain was produced; and, when the apparatus was removed on the 24th, it was discovered that its pressure had occasioned a small slough, and so much ulceration, that the spinous process of the fourth lumbar vertebra actually pierced through the skin, where the cicatrix is still visible. The apparatus was discontinued, and, as experience had taught us how difficult it was to induce her ulcerations to heal under the use of ordinary dressings, it was determined to leave the healing process to nature. The patient was rigidly confined to the facial horizontal position, and a guard was placed over her back, to prevent the bed-clothes, or any thing else, from touching the wounded part. By this contrivance and plan, the formation of successive crusts or scabs was promoted, under which the small slough kindly separated, granulation and cicatrization gradually advanced, and the new skin or cicatrix became firm in about three months. Extension of the vertebræ was frequently employed during the healing process; and the constitution was improved by gentle alteratives, and a laxative of neutral salts and carbonate of soda exhibited every morning.

‘On December 20, the cicatrix was quite firm, and it was evident the projection of the vertebræ had diminished. The extension, pressure, and use of the apparatus were resumed; but the pressure was chiefly made on the transverse processes of the lumbar vertebræ and on the spinous processes above the wound,

by which the danger of reproducing ulceration of the cicatrix was avoided. In the mean time, the child's health had much improved; her sleep had become placid and continued; her pains had greatly diminished, and recurred less frequently; and she was regaining flesh and strength. The apparatus was taken off and re-applied three times a-week. when extension and pressure were also employed as long as the patient could bear them without considerable pain. In March, her mother informed me that my patient could no longer be voluntarily confined to bed, and, maugre the fear of punishment, availed herself of many opportunities of walking about, when the family duties of the mother required her absence from home: indeed, on my visit on March 27, she was playing in a cart. On examining her attitudes, it was found she could firmly stand upright, and perform the different motions of the body, without pain or difficulty; and, instead of stooping or inclining forwards she rather leaned backwards, indicating that the axis of the vertebræ is now posterior to the natural centre of gravity of the body, instead of being anterior, as was the case when the treatment commenced. She was therefore permitted to exercise as much as she desired, but enjoined to observe the facial horizontal position when in bed, and to continue the use of the apparatus. The spinous process of the fourth lumbar vertebra still projected one quarter of an inch beyond the spinous process of the fifth: this has gradually diminished; and, on being examined on August 31st, she was in the full enjoyment of health, of erect position, of muscular power, of all the movements of the body, and, instead of any projection, the lower dorsal and lumbar vertebræ had regained their natural inflection or bend inwards. The spinous process of the fourth lumbar vertebra is still a little larger than natural. During the treatment, the inward bend of the right foot and the contraction of the hamstrings were removed.'

Art. II.—*New means of extracting opium, &c. from the stomach;*
By ED. JUKES, Surgeon.

This is quite an interesting article, we extract the experiments made by Mr Jukes on himself, together with his account of the instrument used in extracting laudanum from his stomach.

'On the 12th instant, I swallowed a drachm of laudanum, undiluted, and immediately afterwards a pint of tepid water. Having my apparatus ready, I passed the flexible tube into the stomach, and drew off *rather more than a pint* of fluid, mixed a little with the previous contents of the stomach, and smelling strongly of opium. Being satisfied, from the perfection of the instrument, that the stomach was emptied, I desisted from any

farther experiments, and sat down to wait for any sensations that might be produced ; *but I experienced none*, and after a short time ate my dinner with appetite.

‘ *August 14th.*—This day, at noon, when I concluded the stomach was empty, I swallowed *two* drachms of undiluted laudanum, and immediately afterwards a pint of warm water. This was instantly drawn off, as in the former experiment, and occasioned me no subsequent sensations.

‘ *15th.*—I drank, this morning, half an ounce of laudanum ; and having as quickly as possible diluted it, by drinking a pint of warm water, the tube was passed, and the liquid withdrawn. In this experiment, as in the two preceding, I experienced no effects from the opium.

‘ *16th.*—At two o’clock, P.M. I swallowed *ten* drachms of laudanum, in the presence of my friend Mr James Scott ; and, having immediately afterwards drank a quart of tepid water, Mr Scott passed the tube into my stomach, and drew off a pint of fluid, strongly impregnated with opium ; and having emptied the elastic bottle, and again applied it, drew off another pint of a similar liquid.

‘ The bottle was now filled with warm water, which, being forced through the tube into the stomach, returned, flavoured *slightly* with opium. Another pint of warm water was now, in the same manner, injected into the stomach, and, when withdrawn, exhibited to the taste and smell but the faintest trace of the medicine. Another pint of water was, however, thrown in, and withdrawn ; when Mr Scott feeling perfectly satisfied of the entire removal of the laudanum, the experiment, which had occupied about ten minutes, was discontinued.

‘ I began now, however, to experience sensations of nausea and giddiness, which, though they might perhaps have been occasioned by the absorption of a portion of laudanum, I am myself inclined to attribute to the irritation of the fauces and stomach, produced by the instrument, and the large quantities of warm water. The nausea increasing, and a disposition to sleep supervening, I threw myself into a recumbent position, and soon lost the disagreeable feelings in a sleep which continued profoundly for three hours. I had slight head-ach on awaking ; my tongue was loosely covered with an orange fur ; and, though my usual dinner-hour had passed, I had no disposition to eat. I now drank several cups of strong coffee, and in a very short time was restored to my usual state of health and feelings ; and having taken, during the evening, occasional draughts of lemonade, the desire for food returned, and I ate some supper, as though my stomach had not been disturbed.

“ Having ascertained, by experiments on my person, that laudanum might be safely introduced, even in very considerable

quantities, into the stomach, I took the earliest opportunities of repeating them upon others; and, in three instances in which I have subsequently administered an ounce of laudanum, (one of which was a female,) the poison was extracted with the usual apparatus, without the slightest symptoms of uneasiness remaining to the patient."

'The apparatus that I now use consists of an elastic gum hollow tube, a quarter of an inch in diameter, and two and a half feet in length, having affixed at one extremity a small globe of ivory, *with several perforations*; the other extremity is adapted, either by screw or by plug, (the latter is preferable,) to an elastic bottle, of sufficient size to contain at least a quart of liquid, having a stop-cock fitted to it, (similar to an hydrocele bottle,) or, instead of the bottle, a pewter syringe of an equal capacity, adapted to the flexible tube in the same manner; (the operation by the syringe is performed more quickly, and may perhaps, therefore, by some be preferred.) In cases where surgeons have neither bottle nor syringe, the tube alone might be made to answer the purpose, by the operator's applying his mouth to its extremity, and thereby instituting the office of a syphon.

'In the use of my instrument, I place the patient on the *left side*,* and having passed the tube, either by the mouth or the nostril, into the stomach, I inject from the bottle a quart of water, heated to 150° of Fahrenheit, and withdraw it in the manner formerly noticed.'

Great Roter-street, Westminster; Sept. 13, 1822.

286. LONDON MEDICAL AND PHYSICAL JOURNAL, DEC. 1822.

The first original communication in this number is a paper on the nervous system by Mr J. Shaw. This is an exceedingly interesting paper. It contains the results of the joint labours of Mr Shaw and Mr C. Bell on the nervous system, down to the time of publication, together with a rapid sketch of the various investigations in which they have been engaged respecting this system. In our analysis, we shall not be deterred by the length of the article, from offering the reader a detailed account of what it contains.

To the Editors of the London Medical and Physical Journal.

GENTLEMEN,

I TRUST the date of this communication will be regarded as some excuse for the imperfect manner in which I have executed the promise I lately made to you, as you must know the extensive nature of my engagements during the first month of the winter course of Lectures. I hope, however, that the following sketch, imperfect as it is, may enable such of your readers as are inter-

* For this suggestion I thank Mr Bush, of Frome.

ested in the discussion, to form a general idea of the investigations in which Mr Bell and I have been recently engaged, relative to the nervous system. I remain, gentlemen, your obedient servant,

J. SHAW.

Albany; October 28, 1822.

‘ ABOUT fifteen years ago, Mr Bell’s attention was particularly directed to the subject of the physiology of the nervous system. The circumstance which first attracted his notice was the difference in the distribution of the nerves of the head from those of the body, and the remarkable fact that all the spinal nerves arose by double roots,—viz. one from the anterior, and another from the posterior column of the spinal marrow. Observing that this form of origin was the same in all animals possessing a spinal cord, and finding that the observations he had made on the anatomy of the brain in the lower animals, corresponded with those of the most distinguished anatomists,—viz. that the anterior column of the spinal marrow was continuous with the crura of the cerebrum, and the posterior with the crura of the cerebellum,—he conceived that, by experiments on the roots of these nerves, he might discover the functions of the two columns, and perhaps, through them, arrive at a more accurate knowledge of the relations and individual uses of the cerebrum and cerebellum. The experiments were made,* and were followed by the same results as those which were lately performed by M. Magendie, and of which notice is taken in your Journal for October. An account of these experiments was printed and distributed among Mr Bell’s scientific friends in 1809. The same essay contains several speculations, which later investigations have proved to be in a great measure correct. I shall here quote a few passages from the essay, to prove that many of the views he has lately published, through the medium of the Philosophical Transactions, have for a long time occupied his attention.

“ I took this view of the subject:—The medulla spinalis has a central division, and also a distinction into anterior and posterior fasciculi, corresponding with the anterior and posterior portions of the brain. Further, we can trace down the crura of the cerebrum into the anterior fasciculus of the spinal marrow, and the crura of the cerebellum into the posterior fasciculus. I thought that here I might have an opportunity of touching the

* I may observe that, previous to having made these experiments, Mr Bell entertained the opinion that the anterior column of the spinal marrow was different in function from the posterior, and that, through it, the simple voluntary power of moving particular parts was conveyed. He deduced this from observing that the two nerves, which are generally supposed to be purely motors,—viz. the third, or motor oculi, and the ninth, or motor linguæ, arose from the anterior fasciculus.

cerebellum, as it were, through the posterior portion of the spinal marrow, and the cerebrum through the anterior portion. To this end I made experiments, which, though they were not conclusive, encouraged me in the view I had taken.

“I found that injury done to the anterior portion of the spinal marrow convulsed the animal more certainly than injury done to the posterior portion; but I found it difficult to make the experiment without injuring both portions.

“Next considering that the spinal nerves have a double root, and being of opinion that the properties of the nerves are derived from their connexions with the parts of the brain, I thought that I had an opportunity of putting my opinion to the test of experiment, and of proving, at the same time, that nerves of different endowments were in the same cord, and held together by the same sheath.

“On laying bare the roots of the spinal nerves, I found that I could cut across the posterior fasciculus of nerves, which took its origin from the posterior portion of the spinal marrow, without convulsing the muscles of the back; but that, on touching the anterior fasciculus with the point of the knife, the muscles of the back were immediately convulsed.

“Such were my reasons for concluding that the cerebrum and the cerebellum were parts distinct in function, and that every nerve possessing a double function, obtained that, by having a double root. I now saw the meaning of the double connexion of the nerves with the spinal marrow; and also the cause of that seeming intricacy in the connexion of nerves throughout their course, which were not double at their origins.”

Mr Bell founded no theory upon these experiments. He continued his investigation of the comparative anatomy of the brain through many successive seasons of his public instructions.

“The result of the examination of the minute structure of the nerves, proved that those which arose from the spinal marrow by double roots were very different in texture from certain other nerves, (the par vagum, for example;) and, upon this discovery, Mr Bell considered himself entitled to state, in his public lectures, that there must be two distinct classes of nerves independent of the sympathetic.”

“The next circumstance, which more particularly engaged his attention, was the fact of the nerves which supplied the limbs being very simple in their arrangement, compared with those which are distributed to the head, neck, chest, and abdomen.—This consideration led him to the idea that he might be able to unravel the seeming intricacy of this part of the nervous system, by means of comparative anatomy: accordingly, he directed his

attention more particularly to the distribution of the nerves in the different classes of animals; and, by this manner of investigating the subject, he was at length enabled to come to the conclusion which is offered in his first paper to the Royal Society.

“When we minutely and carefully examine the nerves of the human body, and compare them with those of other animals, a very singular coincidence is observed between the number of organs, the compound nature of their functions, and the number of nerves which are transmitted to them. No organ, which possesses only one property or endowment, has more than one nerve, however exquisite the sense or action may be; but if two nerves, coming from different sources, are directed to one part, this is the sign of a double function performed by it. If a part or organ have many distinct nerves, we may be certain that, instead of having a mere accumulation of nervous power, it possesses distinct powers, or enters into different combinations, in proportion to the number of its nerves.”

‘To show that, previous to having taken advantage of the proofs afforded by comparative anatomy, Mr Bell had founded a theory somewhat similar, on the observation of the anatomy of the nerves in the human body, I shall quote some passages from the essay already alluded to. It is to be understood, however, that they are not brought forward as correct views, but merely to show how long the subject has been matter of consideration.’

“The spinal nerves being double, and having their roots in the spinal marrow, of which a portion comes from the cerebrum and a portion from the cerebellum, they convey the attributes of both grand divisions of the brain to every part; and therefore the distribution of such nerves is simple, one nerve supplying its destined part. But the nerves which come directly from the brain, come from parts of the brain which vary in operation; and, in order to bestow different qualities on the parts to which the nerves are distributed, two or more nerves must be united in their course, or at their final destination.”

“Hence it is that the first nerve must have branches of the fifth united with it; hence the portio dura of the seventh pervades every where the bones of the cranium, to unite with the extended branches of the fifth: hence the union of the third and fifth in the orbit: hence the ninth and fifth are both sent to the tongue: hence it is, in short, that no part is sufficiently supplied by one single nerve, unless that nerve be a nerve of the spinal marrow, and have a double root,—a connexion (however remotely) with both the cerebrum and cerebellum.*

* By this quotation, it will be seen that, at the time it was written, Mr Bell had not discovered the identity of the fifth and the spinal nerves, a discovery which has

“Such nerves as are single in their origin from the spinal marrow, will be found either to unite in their course with some other nerves, or to be such as are acknowledged to be peculiar in their operation.

“Understanding the origin of the nerves in the brain to be the source of their powers, we look upon the connexions formed betwixt distant nerves, and upon the combination of nerves in their passage, with some interest; for, without this, the whole is an unmeaning tissue. Seeing the seeming irregularity in one subject, we say it is accident; but, finding that the connexions never vary, we say only that it is strange, until we come to understand the necessity of nerves being combined, in order to bestow distinct qualities on the parts to which they are sent.”

In pursuing the history of these interesting researches, Mr Shaw next remarks that it was not until about three years ago, that Mr Bell felt himself entitled to offer the conjecture ‘That several nerves, which had hitherto been supposed to be of the same character, were not only different in structure, but also in function; and this he deduced, not from experiments, but from rigid inquiries into the comparative anatomy of the nervous system. The same mode of inquiry also induced him to suspect that the intricacy of the nerves of the head and trunk, when compared with those of the limbs, depends in a great measure on the particular form of the respiratory organs, and on their combinations with the different functions of the throat, heart, and stomach.’

How far now would these views be substantiated by experiment? Mr B. and Mr S. had seen that the results of cutting the fibrils of the spinal nerves which arise from the posterior column of the spinal marrow, differed from what happened when the fibrils of the anterior column were cut. They now looked for two nerves having nearly the same situation, and supplying the same parts, but having their origins from different portions of the brain. The 5th, and portio dura were selected. The difference of result from cutting these nerves proved the correctness of the theory that there are two distinct classes of nerves besides the sympathetic. This difference, however, did much more than this, it led to the very curious, and important discovery that ‘No organ which possesses only one property, or endowment, has more than one nerve, however exquisite the sense or action

done more than any other to unravel the intricacy of the nerves of the head: still the principle holds good; for, although the fifth pair bestows sensibility and motion, yet other nerves are necessary when the motions of the features, the nose, lips, eye-lids, and even the ball of the eye, become subject to a different influence from that which governs the common motions and common sensibilities of the frame.

may be ; and if two nerves, coming from different sources, are directed to one part, this is the sign of a double function performed by it.”’

On account of the erroneous and partial views, which have been entertained by critics and others respecting the precise object of Mr Bell’s researches, and the theory he has deduced from them, Mr Shaw ‘proceeds to offer a few observations on the manner in which the conclusions, contained in the papers already published were deduced.’

This part, and it is the greater part of Mr Shaw’s paper, we shall quote at length.

‘The facts of comparative anatomy distinctly led to the conclusion, that, if the mouth was not furnished with moveable lips, or cheeks, no branches of the portio dura passed to it, although it might receive many branches from the fifth ; and, indeed, the anatomy of the nerve in many fishes furnishes examples of the truth of this. The next fact observed was, that, where the eyelids are immoveable, no branches of the portio dura are sent to them, though part of the orbit is furnished with branches of the fifth pair. These facts alone were sufficient to entitle us to consider the portio dura as a superadded nerve, and that its presence depends on the existence of organs which might be considered as superadded or additional. The nerve was therefore (previous to the performance of any experiments,) arranged as one of the superadded class : that is, as one of the class distinct from the spinal nerves ; and it was stated that its existence in an animal depends on the same rules as that of certain other nerves,—as, for instance, the phrenic, which, it is well known, does not exist unless there be a diaphragm. By pursuing the comparative anatomy of the portio dura farther, we discovered that there was a very striking resemblance between it and those branches which supply certain parts of the organs of respiration. Thus, in fishes, we found a nerve, similar in origin to the portio dura, pass to the muscles moving the opercula of the gills ; and in some birds, as in the duck, we found the portio dura so intimately connected with the eighth, and having so little connexion with the auditory nerve, that, previous to the performance of any experiments, we concluded that the portio dura was not only of the superadded class, but that it must also be connected with the function of respiration. This latter view was proved to be correct by the first experiment made ; for, on cutting the nerve, the power of inflating the nostrils during respiration was destroyed. Thus two circumstances were made out by a regular train of reasoning, founded on the facts furnished by comparative anatomy. There was, however, still more to be discovered in the same manner : in the

first experiment made, it was observed that the eye-lids were also paralyzed by cutting the nerve. The fact already noticed, that, where there were no moveable eye-lids, there was no distribution of the portio dura on the orbit, prevented us from being surprised at this result: but, to explain the connexion between the organs of respiration and the eye-lids, required a little consideration. The observations which are already before the public, proving that the expression of the face, nay, of the whole body, has such an intimate connexion with the organs of respiration, afford sufficient explanation why the same nerve should combine the motions of the eye-lids and forehead with the acts of respiration, and with the motions of expression performed through the muscles of the nose and mouth.*

‘The next fact which naturally excited our attention was, that there were branches of the portio dura distributed not only on the external ear, but also to the muscles within the cavity of the tympanum. It was also observed, that, if the trunk of the portio dura was cut near its exit from the styloid hole, that the muscles of the external ear were paralyzed. If this be taken into account with the observation, which must be familiar to every one, of the similarity of the expression in the *cocking* of the ear in the dog to the state of the eye-lids and cheeks when the animal is excited, it should be sufficient proof of the portio dura being also for the supply of the superadded parts of the ear, which may be considered as analogous to those of the eye. Though it may be impossible, or least very difficult, to make an experiment by which we should see the effect produced on the internal muscles of the ear, still, after such a series of observations, it is not too much to suppose, that the branches which pass to the muscles within the tympanum are for combining their actions with those of the external muscles of expression; for I think it will be allowed by every one, that there is not only a sense of alacrity in the ear during the excited state of the muscles of expression, but that we have also a certain power over these muscles, corresponding to the command that we have over the muscles of the face.

* “It will be asked, why a nerve called respiratory should go to the ear and eye? First let us inquire, does it belong to the frame of animal bodies that there shall be in them indications of passion? If it be admitted that this is the case, we here learn, in addition, as the portio dura is the nerve of respiration, so is it the grand nerve of expression, not only in man, but in brutes also: all that excitement seen in a dog’s head, his eyes, his ears, disappears if this nerve be cut. The respiratory nerve being cut across in a terrier, the side of the face was deprived of all expression, whether he was made to crouch, or to face an opponent and snarl.—When another dog was brought near, and he began to snarl and expose his teeth, the face, which was balanced before, became twisted to one side,—to that side where the nerve was entire; and the eye-lids being, in this state of excitement, very differently affected, presented a sinister and ludicrous expression.”—*Philosophical Transactions*, July 1821.

This we are conscious of exerting in a certain degree, when we endeavour to counteract the effects of the concussion of the air produced by the discharge of a large cannon. In support of this, (which however, I allow, is a mere hypothesis,) I shall offer a fact observed in comparative anatomy. In the cod-fish, where there are neither moveable lips nor moveable eye-lids, nor external ear, nor ossiculi corresponding to those of the tympanum, the portio dura does not take the same course that it does in animals furnished with those parts, but goes directly to the muscles of the gills. Indeed, even in some birds we have similar evidences. Let us take the anatomy of the duck: as in this bird there is little or no external ear, and little or no motion in the tympanum, we may perhaps be permitted to conclude, that it is in consequence of this, that the portio dura does not go along with the auditory nerve into the ear, but makes its exit by a distinct foramen, to supply the only parts about the head which the duck has in common with the quadrupeds. It was after ascertaining these facts by anatomy, and after forming juster opinions of the uses of the portio dura, that it became important to examine whether by experiment we should find that there was as much difference in the functions of the portio dura and of the fifth, as there was proved by anatomy to be, not only in their origins, but also in their structure, appearance, and distribution.

‘The first experiment made, was to cut the portio dura on one side: the nostrils, lips, and eye-lids, were all immediately paralyzed; but the sensibility of the paralytic part was not in the slightest degree diminished, and, when food was presented to the animal, it ate easily, being enabled to pick up the oats with the lips, and to move its jaws as well as before the nerve was cut.

‘On cutting the infra-orbital nerve of the other side, no effect whatever was produced on the motions of the nostrils, but the sensibility of the parts was destroyed. Here then was sufficient proof of the two nerves being as different in function as they are in origin and structure. A further proof of their difference was observed, in the animal appearing to suffer much less pain when the portio dura was cut, than when the fifth was divided. A circumstance was also noted immediately after the animal was killed, and while there yet remained a power of action in the muscles, which, perhaps, more than any other fact, establishes the difference between the functions of the branches of the two nerves on the face, and at the same time involves one of the most curious questions in physiology. Although the portio dura had been divided for two days, and thus, according to the received opinions, separated for that time from the influence of the brain, still, when the end connected with the muscles was stimulated,

convulsions took place ; while no similar effect was produced by stimulating the fifth. I state this here, merely to show what an extensive field for observation on the functions of the nerves is now opened ; for we know that if the fifth nerve had been divided nearer the brain, somewhat similar results would have followed upon its being stimulated ; but, as farther observations would lead me to the question of the origins of the fifth nerve, I shall at present only remark, that the results of some operations, in which the portio dura in the human body has been cut, afford very curious proofs of the compound nature of the functions of those branches of the fifth pair which supply the lips. Perhaps, indeed, to prove the lip to be an organ of such a compound nature, that, although we say it receives only two nerves, the portio dura and the fifth, there may be in these two nerves several fibrils possessing distinct powers.

‘ When the animal was let loose after the infra-orbital nerve was cut, it was observed that it could no longer eat, although it had fed very well when only the portio dura of the opposite side was cut.

‘ This result naturally interested us very much, but, by a singular combination of circumstances, the cause of this was not then discovered : when, however, all the bearings of the experiment were understood, it was shown to be much more important and curious than we at first supposed ; and that it established more strongly certain conclusions originally drawn from anatomical observations, and which I shall presently adduce.

‘ As we found that the animal was not deprived of the power of feeding by the division of the portio dura, we endeavoured, by the next experiment, to discover how far the power of raising the corn with the lips would be affected by cutting the branches of the fifth. The infra orbital nerves of both sides were therefore cut in another ass : upon the animal being let loose, he could no longer pick up the oats with the upper lip, but gobbled them up by a combined effort of the jaws, lower lip, and tongue ; but the actions of the nostrils during respiration continued entire, although their sensibility was destroyed. Here then, were two experiments followed by very distinct results.

‘ In the first experiment, it was found that, when the portio dura was cut, the actions of the nostril during excited respiration were destroyed ; and, when the infra-orbital nerve of the other side was cut, that the animal could no longer eat. In the second experiment, although the sensibility of the nostrils were [was] destroyed, their actions during respiration continued entire. It was, moreover, observed that the animal could no longer pick up the oats with its lips. Hence, by this experiment, it was distinctly prov-

ed that, on cutting these two branches of the fifth, the powers of feeding were impaired; and upon this we naturally concluded, that if all the branches of the fifth nerve were cut, that the animal would be deprived of the power of feeding. Experiments, made since, have fully established the correctness of this deduction; but it was not till lately, that we were able to show the very curious cause of the loss of power in feeding, consequent upon cutting the infra-orbital branches of the fifth.

‘The effects produced upon the nostril, as an organ of respiration, and upon the muscles of the face, as organs of expression, were so evident on cutting the portio dura of one side, that we thought it a needless cruelty to cut that of the other; and it was in consequence of this, that we were for a long time not aware of the very important assistance which such an experiment would have afforded, not only in explanation of the preceding experiments, but also in proof of a fact which we had been previously led to suspect from the study of comparative anatomy,—viz. that the portio dura was a nerve as similar in function as it is in origin and form to the branches of the eighth pair.*

‘Particular reasons at length induced me to perform this experiment, and then several circumstances, which had been previously a little obscure, were explained; for, immediately on cutting the nerve on both sides of the face, the lips became so paralyzed, (although they still retained their sensibility,) that the animal could no longer use them in raising its food. Thus we now had experiments to show, that if both the infra-orbital nerves of the fifth were cut, or if the portio dura of each side was cut, that the power over the lips in feeding was destroyed.

‘These facts are important, as they make it easy to explain the results of the first experiment, (by which the animal was also-deprived of the power of picking up the oats with its upper lip;) for we can understand that, by cutting the portio dura of one side, the corresponding side of the lip would be deprived of its power of motion; while, by cutting the infra-orbital nerve of the other side, we should deprive it of its sensibility; and thus, the lip being deprived of motion on one side, and sensibility on the other,

* When the portio dura of one side is cut in experiments or in operations, or when it is paralyzed, the effect upon the muscles of the nostril, as organs of respiration, and upon the muscles of the face, or organs of expression, is distinctly marked; while the effect upon the same muscles, as far as they assist in mastication, by pushing the morsel from one side of the mouth to the other, is so slight, that the influence of the portio dura over the muscles in performing this function was not, even after very careful observations, fully discovered until both portio duras were cut in the same animal. The effect produced upon the muscles immediately in the attempt to feed was so evident, that there could no longer exist any question of this nerve having an influence over the muscles of the face, similar to that of the branches of the eighth pair over the pharynx and larynx.

would become as useless as if both infra-orbital nerves, or both portio duras, had been divided. When we move a morsel in the mouth during mastication, we are apt to say that, to do so, it is only necessary that the muscles should be endowed with a power of motion. But this is not perfectly correct. There are two powers in operation; and the function would be destroyed, either by depriving the tongue and cheeks of sensibility, or their muscles of the power of motion: for, if the mouth was deprived of sensibility, the morsel not being felt, no direction could be given to the muscles, and consequently it could not be moved, and successively put under the operation of the teeth and jaws. This is what takes place when the lips are deprived of their sensibility; for although, by smelling, a creature is directed to the food, yet, when the lips touch it, there being no sensation, there is no direction given to the muscles of the lips to gather it; and hence, after ineffectual endeavours, the animal touches the morsel with the tongue, and licks it up like a dog.

‘The experiment of cutting the portio dura on both sides also enabled us to establish another important fact,—viz. the similarity of the functions of the portio dura to those of the branches of the eighth pair, which we had been already led to suspect, on observing the intimate connexion which there is in some animals between the origins of the two nerves. By cutting the portio dura of each side, not only were the respiratory functions of the muscles of the face destroyed, but also their power of assisting in mastication, being an effect analogous to the consequence of cutting the branches of the eighth pair; for, by that division, there not only follows the destruction of the larynx, as an organ of respiration, but also the deterioration of the actions of the pharynx, as part of the apparatus necessary to deglutition.

‘Instead of now going into a separate detail of the facts of anatomy, and of the experiments by which certain other nerves were shown to be as distinct in character and function from those which arise from the spinal marrow, as the portio dura is from the fifth, I shall exhibit the characters of the two classes, with the assistance of the plates which have been already published in the “Manual of Anatomy.” In Plate I. we have a plan of the cerebrum and cerebellum, and of their crura, which correspond to the columns of the spinal marrow;—the crura of the cerebrum to the anterior, and the crura of the cerebellum to the posterior column. In the same plate we have also a plan of the origins of all the spinal nerves, and of the fifth, or trigeminus.

‘The characters of the spinal nerves may be thus defined:—they have all double origins,—they have all ganglia on one of their roots,—they go out laterally to certain divisions of the

body,—they are all compound nerves, being at the same time muscular nerves, ordering the voluntary motions of the frame, and bestowing sensibility on the surfaces of the body,—they are exquisitely sensible, and they pervade every part. These are also the nerves which are affected in the common cases of hemiplegia; and when, in experiments on animals, or in operations on the human body, the trunk of one of these nerves is divided, the muscles to which it goes are deprived of the power of executing certain motions; and the sensibility of the part of the skin to which the nerve is distributed is also destroyed. But if only one of the origins be divided, (the anterior,) the power over the motions of the muscle will alone be destroyed, while the sensibility of the part will continue perfect; but this will also be destroyed if the other origin (the posterior,) be divided. These properties of the spinal nerves, with the exception of the difference in the effect produced by cutting the two origins, have been allowed by anatomists of all ages. It remains, however, that I should now prove the correctness of a discovery, which is most important to the anatomist,—viz. the similarity, in every respect, of the nerve commonly called the fifth of the brain, to the spinal nerves. To do this, I shall nearly repeat part of the observations which I made in my last communication to this Journal.

‘1. That the head and face, having many parts in every respect similar to the neck, trunk, and limbs, must have corresponding nerves.

‘2. That the manner in which the spinal nerves and the fifth arise by double origins, (as may be seen in the plate,) is very similar.

‘3. That the two origins of the fifth are united by a ganglion exactly of the same shape and character as those which unite the two origins of the spinal nerves.

‘4. That the manner in which the branches of the fifth are distributed, and those of the spinal nerves, is the same.

‘And, lastly, that the same kind of connexion exists between the fifth and the sympathetic, as between the latter and the spinal nerves.

‘In their morbid affections, the similarity also holds good:—thus in the common cases of hemiplegia, the spinal nerves and the branches of the fifth are similarly affected. In this disease, the voluntary power over the limbs, and the sensibility of the side affected, are generally destroyed; but in some cases the voluntary power is lost, and the sensibility continues unimpaired, or *vice versa*. This variety also occurs on the face; for the jaw will drop, and there will be all the marks of paralysis, while the

sensibility of the skin, and the sense of taste, will continue entire.

‘In experiments on the nerves of the spine and on the fifth, we meet with the same results. If, as in the operation which is now frequently performed on the nerves of the horse’s foot, we cut a spinal nerve after the branches are given off to the muscles moving the part, we shall destroy only the sensibility of that part; but, if we cut the nerve nearer to the brain, we shall not only destroy the sensibility, but also the power of motion. The same happens in experiments on the fifth; for, if we cut a branch which is principally distributed to the skin of the lips, we shall destroy the sensibility of the part, but impair the power of mastication only in a slight degree: but, if we divide the nerve further back, then we shall not only destroy the sensibility of the skin, as in the first experiment, but also cut off the power by which the jaws are moved. I cut a branch of the fifth upon the face: the sensibility of the corresponding side of the lip was destroyed, but little paralysis ensued, excepting of certain actions of the orbicularis oris. I cut the nerve nearer the brain, and at a point previous to its having given off the branches to the other muscles: then the jaw fell, and the muscles of that side were powerless. I varied the experiment, by irritating the nerve where it lies in the spheno-palatine fissure, immediately after an animal was killed: the jaws then came together with much force, indeed, so as to nip my assistant’s finger severely. This last experiment may be compared with the very common one of galvanizing the nerves which pass from the spinal marrow to supply the muscles of the extremities.’

Here follows explanation of plate.

‘I shall now proceed to explain the second plate, containing a plan of the nerves which have been considered superadded, or dependent upon the existence of parts that may be considered as additional to the original frame of the body. I shall afterwards offer (from high authorities in the profession,) proofs of the advantages already gained in the practice of medicine and surgery by the discovery that this class of superadded nerves is in every respect different from the original system of nerves, exhibited in plate I.’

[The editors are sorry to be obliged to, defer the remainder of Mr. SHAW’s communication until next month.]

MEDICO-CHIRURGICAL REVIEW AND JOURNAL OF MEDICAL SCIENCE.

London, Dec. 1822.—No. 11.

Puerperal Fever. Mr Moir relates a case of puerperal fever, and accompanies it with some observations which we deem to be of an extraordinary nature. We shall first give the outline of the case itself. A lady, in the 28th year of her age, was delivered (breech presentation) at three o'clock, on the 19th June, 1822, and seemed to be doing well through the night. Next morning, however, her pulse was feeble, and she had a fatigued appearance. The uterus felt harder than usual, and there was some abdominal tenderness, apparently from flatus. The lochial discharge was natural. At 2, P.M. she had a rigor, accompanied with much pain and tumefaction of the abdomen, and a dull heavy pain in the forehead. Her countenance now appeared pale, and expressive of great anxiety—her breathing was short and frequent, but not laborious—skin hot—pulse 120, weak and easily compressed—abdomen greatly swelled, and tender to pressure—some sickness and faintness; but “the chief seat of uneasiness was in the uterus and right iliac region.” When perfectly quiescent, the pain could be tolerated without complaining; but the least movement of the body, or pressure on the part, rendered it excruciating. An ordinary glyster brought away ‘two full costive and fetid evacuations.’ Even this produced such a degree of exhaustion that both wine and æthereal cordials were necessary. In the evening, although some relief had followed the enema, all things had got worse again—the abdominal pain had not decreased—the head-ache was greater—the pulse 130, small, and fluttering. The cordial medicine was continued, and a drachm of the tincture of hyoscyamus to be taken immediately.

On the 21st, the symptoms were aggravated—pulse 140, small and equal—breathing short and hurried—cheeks a little flushed, while a death-like paleness overspread the rest of the face—head-ache unabated—skin hot—abdomen swollen. Three stools had been procured by an enema—lochial discharge natural. A dose of castor oil; and the cordial mixture to be continued. At four in the afternoon manifest relief had resulted from three evacuations by the castor oil. Much flatus had come away; but the state of the pulse and other symptoms was not altered—the debility was increased. Two glasses of wine, with panada, were ordered in three or four hours. In the evening the alarming symptoms had increased, though the abdominal swelling had diminished—pulse 150, and remarkably feeble—cessation of the

mammary secretion—lochial discharge continued, though pale. The cordial mixture was ordered to be repeated; and an anodyne draught with ʒj. tinct. hyoscy. and m. xx. tinct. opii, at bed time. 22d. All the symptoms more favourable—had slept and perspired in the night—pain in the head and abdomen greatly relieved—swelling of the belly much diminished—pulse 130 and stronger—tongue clearing at the edges. A dose of castor oil—some wine. From this time her convalescence went on regularly.

Now on this case we shall take the liberty of remarking that, so far from considering the above-described symptoms as unequivocally marking it 'the malignant puerperal fever described by Hulme, Doublet, and other authors,' we unhesitatingly pronounce it to be a very exquisite specimen of what Dr Marshall Hall has admirably described, though somewhat vaguely denominated, 'a serious morbid affection chiefly occurring after delivery, &c. from various sources of irritation and exhaustion.' The principal source of this irritation Dr Hall has traced to a *disordered and loaded state of the bowels*. In short, if any one will turn to Dr Hall's little work, or to our review of it in the first volume of this series, p. 195, he will see the disease, denominated by Mr Moir 'malignant puerperal fever,' fully delineated. We cannot therefore but deprecate the sweeping dogma that would amalgamate this affection with puerperal fever, or puerperal peritonitis, and proscribe the lancet altogether in a complaint where it is our principal resource. As for the peculiar opinion of Mr Moir's old preceptor, Dr Hamilton, that in real puerperal fever the lochia continue, and in common hysteritis or peritonitis they are suppressed, we can only say that the profession at large recognize no such distinction, and only consider it a little hobby of the doctor's, which he may fairly be allowed to ride about in the class-room, for his own health, and the edification of his pupils. Mr Moir's acquaintance with the variety of forms which diseases assume may be estimated by the following dogmatical assertion. 'In all of the cases in which these gentlemen (Drs Gordon, Armstrong, Hey, &c.) succeeded, the pulse beat from 120 to 140, and the lochial discharge was suppressed at the very commencement of the disease—symptoms which, I do not hesitate to affirm, no intelligent practitioner of respectability ever met with in a real case of malignant puerperal fever.' Now one of the two symptoms here denied to malignant puerperal fever, viz. pulse from 120 to 140, was actually present in Mr Moir's own case; so that by his own dogma Mr Moir can only pretend to be *half* of an intelligent and respectable practitioner. Mr Moir says that the descriptions given by the above-mentioned gentlemen are contradicted by the

detail of the individual cases. They may return the compliment, for Mr Moir's dogma is unequivocally contradicted by the case which he has brought forward to support it.—*Mr Moir. Ed. Journal, No. 73.*

Iritis. Dr Smith, of the Army Ophthalmic Depot at Chatham, has made a valuable report of cases to our respected cotemporary of the North. Twelve instances of iritis are narrated, accompanied by the usual symptoms of increased vascularity of the iris and external tunics of the eye-ball, pain, intolerance of light, lachrymation, immobility, contraction, or irregularity of the pupil, dimness of vision, and sense of over distention of the eye-ball. The cause was, in almost all the cases, attributed to the action of cold. Some of the men had had syphilis, and some not. The same might be said of mercury. These results, as far as they go, in Dr Smith's opinion, 'have little tendency to support the supposed noxious effects of syphilis or mercury on the eyes.' Dr Smith, from much experience, is inclined to view the syphilitic and mercurial actions as predisposing, not exciting causes of iritic inflammation, partly by their deranging the healthy functions of the system, and partly from their requiring confinement, whereby the body is rendered more susceptible to the action of cold, which appears to be the general exciting cause of idiopathic iritis.

The treatment was regulated by the severity of the symptoms. When the pain was violent, or moderate but of long standing, venesection to syncope was ordered—but when the pain was pretty moderate, and the other symptoms did not run high, local blood-letting was considered sufficient. After the bleeding, a purgative, generally containing some tartrate of antimony, was exhibited. No benefit was derived from full vomiting.

'As soon as the bowels were freely evacuated, the next object was to affect the mouth with mercury. This was done by giving calomel in conjunction with opium, during both the day and night, in doses of two grains of the former, and a quarter of a grain of the latter, every hour, or perhaps every two hours, till the gums felt tender, or an increased flow of saliva was manifested. About this period of the cure the patients generally stated that they experienced a very considerable abatement of the pain, and sense of fulness with which they had been hitherto annoyed. The vision immediately became more clear, and irregularity of the pupil and effused lymph began to subside, and the iris to assume its natural colour. A continuation of the mercury for ten days or a fortnight, so as gently to keep the mouth affected, removed the disease in all except one.'

Our author observes that iritis may be cured in the ordinary way, by antiphlogistics, but neither so safely nor so speedily as on the mercurial plan above described. Added to which, the chance of losing or impairing the visual orb is much more by the one treatment than by the other.

We have often been surprized that the treatment of iritis alone, which no one will deny to be an acute inflammation, did not alter the language of physicians and physiologists respecting the *stimulant* powers of mercury. It is considered a stimulus, a general or universal stimulus, and little else. Now wine or brandy is also a general stimulus; but would either of them cure iritis? The term (as a single one) most applicable to mercury is that of a *universal secernant*; and we have long thought that the increase of absorption consequent on the operation of mercury, results from the previous evacuation or depletion, which is well known, as in the instance of blood-letting, to set the absorbents actively at work in all parts of the system.—*Dr Smith. Ed. Journal, No 73.*

*Compound Fractures.** The general practitioners in the country are treading close on the heels of the exclusive surgeons in-town. There is a far greater spread now than formerly of medical and surgical information among all ranks of the profession, and they are become bolder and more successful in their practice. The pages of our own Journal have contained ample proofs of this—and the Medico-Chirurgical Transactions owe no small proportion of their contents to this valuable class of medical society.

Mr Dunn is favourably known to the profession by a paper in a late volume of these transactions, containing a case of the removal of several of the tarsal and a part of the metatarsal bones followed by complete success. The present communication records two cases of compound fracture, in which the limbs have been saved by a similar removal of large portions from the middle of the cylindrical bones—and one of simple fracture, in which a projecting portion of bone was sawn off with equal success. Of these cases we shall present our readers with a succinct analysis.

On the 17th of March, 1821, John Harper, a lad of 14 years of age, was thrown from his horse, and while one foot hung in the stirrup, the horse went off at full gallop. The consequence was a dreadful fracture of the right leg—the broken ends of bone projecting from a wound of immense extent, and a portion of the

* Observations on Compound Fractures. By John Dunn, Esq. Surgeon, Scarborough. Med. Chir. Transactions, Vol. xii.

tibia detached, which he (Mr Hagyard) removed.' Mr Travis and Mr Dunn arrived by candle-light—

‘And found the poor lad in a small and wretched hovel, extended on a couch, with a large wound, and destruction of the skin of the middle of the leg; the upper portion of the tibia projecting like a stick, unconnected with any of the soft parts, and deprived even of its periosteum, to the extent of between two and three inches, and the lower portion denuded of all covering to the length of three-fourths of an inch. The fibula was also fractured near the knee, and in the centre of the leg, so that it was divided into three pieces. It was, however, so connected with the surrounding parts, that the spiculæ of bone could only be discovered by the insertion of the finger into the wound. The teguments on the posterior part of the limb, although much bruised, were not deadened; and the circulation could be distinctly traced along the course of the posterior tibial artery. A considerable hæmorrhage took place at the moment of the accident, but it was now suppressed. The wound was six inches or more in length, and as many in breadth; but the boy was comparatively tranquil. On consultation, the grand question was, whether to amputate the whole member; to put it up in splints as it was; or to saw off the denuded rough extremities of the tibia, and treat it as an ordinary compound fracture. In this dilemma, which required immediate decision, we determined upon the last expedient. The tourniquet was therefore applied to the broken ends of the bone raised from the wound, and whilst the limb was held steady by one, and a bone knife kept under the exposed portion of the tibia by another of my friends, I successfully amputated the two extremities of the fracture, including about *three* inches of the whole cylinder of the tibia. We were unable to reach the fibula with any instrument, so that the two portions of the tibia could not be brought within an inch and a half or two inches of each other, without projecting the spiculæ of the former into the surrounding muscles.” 169.

Stitches were passed through the edges of the wound, and their sides drawn as near as convenient, when strips of adhesive plaster were applied round the limb, with an eighteen tailed bandage and splints. The patient went on favourably—the wound became so covered with granulations that the bones were no longer discoverable. On the first of May the report was—‘the sinuses diminished; the space between the bones filled up with solid matter; by compressing it on each side I could trace a continued line of bone.’ By the 26th of October the boy was walking about the streets.

While we give Mr Dunn every credit for his judgment and prompt resolution, in the above case, and while we most fully approve of the practice which he adopted, we venture to differ from him on certain physiological points—and this difference, we have stated in our review of Sir Astley Cooper's work on Dislocations; we need not, therefore, repeat it here.—*See page 633.*

The second case related by Mr Dunn, is that of a lad, sixteen years of age, who was stricken, on the middle of his leg, by a great plank of wood. Both the tibia and fibula were fractured. The ends of the former protruded from a very long wound, above half the length of his leg, having the appearance of a clean cut. The ends of the bones were very ragged—the most forcible extension could not place them in coaptation. It was, therefore, determined to saw off their extremities with the common amputating saw—No hæmorrhage of consequence followed—the wound was cleaned, and the bones put in apposition. About half an inch of the exterior part of the tibia was left denuded of its periosteum, but the rest of its circumference was connected with living parts. The leg was properly dressed, and the boy was judiciously treated. In four or five months the patient could walk without crutches.

The third case was the removal of a projecting edge of the tibia, after a badly united former fracture. These cases are very creditable, as we before observed, to Mr Dunn, and to provincial surgery in general.

THE EDINBURGH MEDICAL AND SURGICAL JOURNAL. 1 OCTOBER, 1822. NO. LXXIII. PART I. ORIGINAL COMMUNICATIONS.

I.—*On the Pathological Anatomy of the Human Brain and its Membranes.* By DAVID CRAGIE, M. D. Lecturer on Anatomy and on Physiology, Edinburgh.

DR G. treats the subject under two general heads. I. The morbid changes of the brain and its appendages. II. The connexion between these changes, and others which exist in different organs. The first division is subdivided, into 1st, Morbid changes in the membranes; 2d, Morbid changes in the convoluted surface; 3d, Morbid changes in the central surface; 4th, Morbid changes in the substance of the encephalic mass.

Dura mater. Some anatomical history of this membrane being premised, Dr G. speaks of the alleged morbid action of the vessels by which this membrane and the pericranium are con-

nected together, and which it is said follows external injuries of the pericranium.

‘This sympathetic action, as it has been named, has been fully considered, and very much overrated by Mr Pott, who has laboured to impress the profession with the notion, that the dura mater is always in an inflamed and subsequently sloughing condition when the pericranium has been severely injured. There is, however, no direct proof that this is a uniform result. That it has existed in some few instances, we are perfectly willing to admit; but I am satisfied, from many observations on this point, that it takes place much less frequently than has been supposed. I have seen the pericranium detached for the space of two square inches, and a granulating process commence from the external table, but without the slightest proof of the dura mater being diseased. In the young subject, it is by no means uncommon, when the pericranium is injured, to see the whole thickness of the cranium removed at the spot by the ulcerative absorption, and the wound begin to show the pulsating motion of the brain, and expel purulent matter at every motion of respiration; yet this morbid action will gradually disappear, and leave no trace of any great or important change in the dura mater having taken place. The effects, in short, which injuries of the pericranium produce on the vascular system of the dura mater, are very much varied by the age, disposition, and habits of the individual, and, above all, by the treatment which is employed after the injury.’

In the next paragraph Dr G. notices the opinion of Dr Baillie that the adhesion of the dura mater to the cranium may be so great as to amount to disease. He dissents from this opinion, and sees no reason to believe that any degree of adhesion should be regarded as morbid. A case follows in illustration. We give it in the words of the writer. It may be questioned whether an individual instance should overturn the general doctrine on the subject, as far as such is advanced by Dr Baillie.

‘A man of about thirty-five years, who had received a slight blow on the head, began, some time after, to labour under pain of the whole syncipital region; and, in the course of few months, had complete amaurosis of both eyes. Remedial treatment was employed under eminent surgeons without much benefit; and, in addition to his other maladies, he soon became epileptic. After suffering, in a hopeless manner, under his complaints, for the space of six months, he fell into a comatose state, and died in a few days. Dr Duncan junior and myself examined the body in the presence of some medical friends. On opening the head, we found that the internal table of the cranium did not adhere with the usual firmness to the dura mater, but instantly dropped

off as soon as it was divided all round by the saw. The skull-cap, which was thus removed, was unusually thin through the greatest part of its extent; and this thinness was obviously produced by the removal of a part of the osseous structure of the internal table, by absorption perhaps. In some few points, the original thickness of the cranium was left unchanged, so as to form the spiculae of which pathological writers have spoken in describing the appearances of the epileptic cranium. These spiculae, however, were not produced, as has been generally supposed, by an augmentation of the ossific action, but, as I have already hinted, by the removal by absorption of the bone of the contiguous parts. No blood-drops appeared either on the external surface of the dura mater, or on the internal surface of the cranium; so that the usual arterial connexions of those parts were no longer present. The lateral and inferior regions of the cranium presented the same appearances; and the dura mater seemed to lie very loosely on all these parts of the basis of the cranium, to which it generally adheres with singular firmness.'

The osseous degenerations occasionally noticed in the dura mater are next alluded to.

Arachnoid membrane. Some anatomical description of this membrane is first given, and the difficulty of separating its morbid affections from those of the pia mater stated.

'The most usual morbid alteration to which the arachnoid membrane is liable, is the diminution of its transparency, without any change in its shining aspect. This is most remarkable in those parts of the membrane which correspond to the cerebral anfractuositities, where the arachnoid membrane has then a tinge of a bluish grey colour; but it is likewise sufficiently obvious on the apices of the convolutions, where it prevents the observer from perceiving the natural colour of these objects. The superior part of the hemispheres on each side of the median fossa is sometimes wholly occupied with this appearance; but when it is present, it is always most conspicuous at the basis of the brain. In such circumstances, the arachnoid membrane is elevated and detached from the pia mater by the interposition of a watery fluid; its entire non-adherent surface has a gelatinous appearance; and some observers have thought that a semi-fluid substance resembling jelly was deposited beneath it; but if a puncture or two be made, a considerable quantity of watery fluid is observed to escape; and the observation of this phenomenon is, in truth, a very good method of proving the existence of the arachnoid membrane.'

Immediately following this paragraph, the question of the precise source of the fluid effused between the arachnoid and pia

mater is examined, and some of the well known opinions of Bichat relating to this subject discussed at length and controverted.

Dr G. next in a brief manner notices the assertion that the arachnoid sometimes secretes purulent matter. This may be the case in consequence of external injury of the head. He doubts its spontaneous origin.

‘The last morbid appearance which I shall notice, as presented by the arachnoid membrane, is another instance of an alteration taking place in it, but depending on a diseased action, which originates in another part of the encephalic organ. Instead of the smooth and glistening aspect which characterises the sound condition of this envelope, the pathographical observer remarks, that it has become unusually dry, and seems to be no longer lubricated with the fluid which exudes from its non-adherent surface. I do not at present remember that this change in the arachnoid membrane has been mentioned by authors on the subject; but I am quite satisfied of this fact, that it has never been remarked to be connected with a particular condition of the central surface of the brain. I have invariably found it in the true acute hydrocephalus of children, and, so far as my observation bears me out, it indicates the presence of water in the cerebral cavities. I do not at present remember a well-marked case of this disease, the acute hydrocephalus, in which I did not first recognise the dry, dull, and lustreless appearance of the arachnoid membrane, and find, at the same time, a quantity, more or less considerable, of limpid fluid in the ventricles. My limits will not permit me to offer any observations on the link which seems thus to connect the actions of two different parts of the same organ; but, according to the usual principles of medical reasoning, I believe it will generally be considered as an example of the transference or modification of a natural action, in consequence of the excessive degree of a diseased one. The symptoms attending this appearance are abundantly well known, and require, on that account, no notice from me; but it might, perhaps, lead my readers to misunderstand what I have advanced concerning this state of the arachnoid membrane, if I failed to notice certain discriminating circumstances with which it is accompanied.

‘First, then; it might be understood that, whenever the cerebral cavities are expected, from the symptoms during life, to contain fluid at death, then the arachnoid membrane must be dry, dull, and destitute of its ordinary glistening aspect. This, however, it might be remarked, is contradicted, both by what is generally known on the subject, and likewise by what I have

myself said in a previous part of this paper. Fluid may be found in the cavities formed by the central surface, and the arachnoid be unchanged in its appearance; or it may exhibit the appearance which I have described, when speaking of the aqueous state of the pia mater. There is, therefore, a certain order of affections in which the arachnoid membrane retains its shining aspect, and there are others in which this is no longer observed. The latter is that which takes place in the acute hydrocephalus, and is, in truth, the only pathological phenomenon which particularly distinguishes this disease from the other morbid conditions in which fluid is found in the ventricles.

‘Secondly; a great number of affections of the head have a common termination in effusion on the two surfaces of the brain, the convoluted or exterior, and the central, or that of the cavities. We observe these in persons of all ages and habits—in the young and in the old, in the robust in certain circumstances, and in the feeble and strumous habits; and we recognise them as a sequel to many different or even opposite maladies;—to contagious fever, to dropsy, to diseases of the organs of respiration and circulation, to traumatic fevers, &c. We observe this effusion taking place in periods of very short duration, and sometimes only in the course of many weeks or months. Lastly, we see it, in some instances, attended with very characteristic and formidable symptoms, and at other times producing so little effect on the other functions, that the most sagacious observation cannot, in certain circumstances, be led to suspect it. Are these effusions the same with that of the acute hydrocephalus? If they are not, in what respect do they differ from it? I cannot indulge in the hope that I am to explain this difficulty entirely; but I trust that the following remarks will tend to elucidate it in some degree.’

The appearance of air in the vessels of the pia mater is next treated of. Notwithstanding the speculations of Bichat and Morgagni, the questions how the air gets into these vessels, and in what way it acts to cause sudden death, remain unsettled. The question becomes more general as the author advances, and the presence of air in the vascular system generally is noticed, and the following quotation contains the doctrine of a distinguished physiologist on the subject. Which doctrine however was maintained before Bichat, and is only revived by the physiologist referred to.

‘M. Nysten, to whom I allude, has performed many experiments on the mode in which death takes place when air is found in the vascular system; and these have led him to conclude, that the brain is never the organ affected by it, but that, in certain

circumstances, the heart suffers primarily, and in others the lungs. When air, he says, is found in the venous system in very great quantity, it first descends mechanically the right cavities of the heart, and then destroys its contractile power; so that the individual is killed, first by the interruption of the pulmonary, and then of the general circulation.* When, on the other hand, air is found in the venous system, not in sufficient quantity to effect the death of the heart, it forces itself gradually into the branches and divisions of the pulmonary artery, where it produces a singular degree of obstruction, and impedes the complete filling of the bronchial extremities. A peculiar action resembling *peripneumonia notha*, or *bronchitis*, takes place, and the individual dies of suffocation in the course of the fourth day.†

Tubercular diseases affecting the pia mater, as mentioned by Dr Powel in the Transactions of the Royal College of Physicians, are very briefly referred to. Dr C.'s opportunities have not enabled him to add any thing important, in his own language, 'either to our knowledge of the morbid appearances, or to the *semeiographical relations of this species of disorganizing process*.'

Dr. C. next directs his inquiries to the *convoluted* and *central* surfaces of the brain.

'The cerebral surface consists of two great divisions, which are continuous, and communicate with each other in a very direct manner. The first of these which is applied throughout its whole extent to the dura mater, or its productions, is exterior, is marked with the bodies denominated convolutions, and is what we name the *convoluted* surface of the brain. The second is interior, is marked with objects of a different description, forms those cavities more generally known in the common anatomical works under the name of ventricles, and constitutes what we name the *central* surface of the brain. Each of these surfaces may be the seat of effusions of serum, of blood, of puriform fluid; or they may be broken down, or disorganized by these effusions.'

Having remarked that the effusion of serum is a very rare occurrence, on the convoluted surface, and having already attended to watery effusion in the central, he goes on to speak of extravasations of blood into these parts. He traces this accident with much care from its occurrence on the exterior of the brain

* Recherches de Physiologie et de Chimie Pathologiques pour faire suite à celles de Bichat sur la Vie et la Mort. Par P. H. Nysten. A Paris, 1811. Première Section. Article I. § 1. pp. 27, 28, and 34.

† Recherches, &c. Première Section. Article I. § 2. pp. 37, 38, 39.

through the various portions of this organ to its base, and notices particularly the effects of the presence of blood in each, both as they regard the immediate seat of the extravasation and the functions generally. We make some extracts on the local effects alluded to.

‘ If the effused blood do not immediately cause every vital action to cease, it acts as a foreign body, breaks the fibres, or compresses the globules of which the part may happen to be composed. This mechanical destructive change is succeeded by vital ones, which act in a way exceedingly obscure, but give rise to effects sufficiently obvious. The part contiguous to the effusion becomes soft, pulpy, and irregular. When examined with the microscope, it presents no regular or uniform structure similar either to the surrounding parts, or to that which it presented previous to effusion. A number of minute granular eminences, very different in size and in figure, surrounded with a semifluid substance, is all that the most careful inspection can recognise. I am quite satisfied that this appearance has been often set down by authors as the abscess of the brain; but I cannot admit the assertion to be correct, till they have previously defined what they mean by the term, *suppuration of the brain*.* If, indeed, the cerebral matter, in consequence of the presence of a substance which is heterogeneous to it, and destitute of the living properties, be made to assume an action analogous to the inflammation of the other textures; if, in short, it commence a sort of effort to remove the noxious substance, then perhaps we may allow, that the broken down and disorganized parts are actual imposthumes. This view of the effects of the cerebral hemorrhage, however, has, so far as I know, been offered by no one of those pathologists who have spoken so familiarly of the cerebral abscess, In a preceding page we have the following in a similar connection.

‘ The effused blood breaks down, softens and disorganizes the surface, which, instead of presenting its ordinary polished and rounded appearance, becomes rough, irregular, soft and pulpy.† This change, which may take place in the course of about from seventy hours to eight days, has been noticed by Mr John Hunter, and some other authors. It has generally been considered as a species of suppuration; and perhaps this action may succeed to some inflammatory state of the cerebral matter, induced by the presence of the blood, which then acts like a foreign body. I am, however, very doubtful if we can suppose the cerebral matter ever to undergo the suppurative process, unless in conse-

* Recherches Anatomico-Pathologiques par F. Lallemand, Lettre, I. et III., especially No. 27. † xiii. xiv. pp. 474, 489.

† De Penitiori Structura, &c. p. 29, 100. Observat. 3tia et 4ta.

quence of external injury ; for I believe that spontaneous inflammation taking place in this organ, proves fatal long before it passes into the suppurative stage. I am aware, that, in advancing this opinion, I expose myself to the charge of contradicting the descriptions given by very high authorities ; but the observations of Dr Baillie, the writer to whom I allude, have, I conceive, been derived either from cases which were really and truly extravasations of blood, or the appearances produced by the sequelæ of injuries of the brain.'

In the paragraph next succeeding our first quotation on the local effects of extravasation, we have the following relating to those effects.

' Another effect to analogous that which I have now described succeeds, in some very rare cases, to the extravasation of blood into the substance of the brain. When blood has been effused into the hemispheres without terminating immediately the patient's existence, it may disappear very nearly in the manner I have noticed ; but a quantity of serous fluid occupies its place, and fills the cavity, which is never obliterated. This is a very rare appearance ; but it is, nevertheless, occasionally met with ; and I think that the few cases which have been observed, have been found in the brains of persons who have survived an apoplectic attack for many years, and, at the same time, suffered under a palsy more or less general.'

Dr C. next passes to the consideration of those degenerations of the substance of the brain denominated tumours, a terminology which it is clear he is not over fond of. He says very little about them. Their history both as it relates to causes and symptoms is so very obscure, the discordance of symptoms and morbid appearances so great, that he regards it as difficult if not impossible to recognize any thing leading to general principles. He therefore leaves this unsettled ground, and goes on to offer some remarks on ' morbid changes occurring, or said to occur, in particular bodies which are not with propriety referable to any of the above heads. I allude to changes in the *hippocampus major*, changes in the *conarium* or pineal gland, and changes in the *hypophysis*, or-pituitary gland.

Case III. *Cases and observations on simple chronic Inflammation of the Uterus, in which state this Organ may become Retroverted.*
By JOHN ROBERTSON, M. D. Glasgow.

THIS is an interesting paper. Its pathological views are novel, and what is of most consequence, they lead to much good practice. We shall offer our readers an analysis of this article, and in as short a space as we can manage to do it in.

After a remark or two preliminary, Dr R. gives a case of the disease which is the object of his paper. The patient, delicate looking, aged about 30, had not menstruated for three months; had been flatulent, dyspeptic, and affected with a complaint she termed *gravellish*. The latter increased, with weakness in the back, and slight uneasiness in the groins. She continued about house. 'On the 27th November 1816, however, while walking across the floor, she was suddenly and unaccountably seized with excruciating pain in the lower part of her belly. Immediately thereafter I was sent for, and found her shrieking from agony, every few minutes aggravated by violent spasm, almost exclusively referred to the umbilical and lumbar regions. Her countenance was keenly, or rather wildly, anxious; she lay in a half recumbent posture, with the knees drawn up towards the belly; her tongue was dry and parched; heat of skin rather increased; the pulse beat so quick and small that it was in vain to reckon it; and, on inquiry, she denied any suspicion of her being pregnant.'

For these symptoms she was blooded till partial syncope occurred. The pain abated, but threatening to return with the return of strength, a teaspoonful of laudanum was given, and repeated in a few minutes, as its effects declined. Fomentations to abdomen and an anodyne enema were administered. In an hour she became drowsy and nearly free of pain.

28th. Comparatively easy,—sense of weight and soreness in abdomen; most at lower part;—also of back and thighs,—constant desire to pass water and feces;—the greatest pain felt on standing or walking. She denies being pregnant, and will submit to no examination. Horizontal posture is enjoined, and frequent doses of castor oil.

Dec. 5th. Till this date, patient continued as reported. Symptoms then more severe. Similar treatment, with additions of repeated but small doses of calomel, magnesia and rhubarb.

'During this attack, I remarked that, while the spasms were less frequent, they were attended with a more decided bearing down than before; that, on remission, the pain confined to the lumbar and hypogastric regions was dull, heavy, and constant; that the dysuria and tenesmus were still distressing; and she acknowledged that, during the last month, she did occasionally feel shooting pains in the mammæ.'

An examination was permitted. The uterus was found lower down than it should be; enlarged to its size in the fourth month of pregnancy; and exquisitely tender to the touch. She felt weak. Her pulse was quick but feeble. She was now supposed pregnant, but as she had cough, and quick pulse, a large blister

was applied to the hypogastric region, and small doses of tartar emetic given.

Under the treatment great relief was obtained. On the 14th, some trifling return of the symptoms was experienced. A fomentation, and opiate liniment with ammonia removed them. Examination being now made *per vaginam*, the uterus seemed less low than at the former one; it was by no means so tender to the touch; and was thought more buoyant than before. The opinion of the existence of pregnancy was supported now by the uterus being felt enlarged in the hypogastric region. On the 16th, she was reported free from pain but still extremely weak.

Jan. 2d. Having continued as on the 6th, to this day, she was attacked again by her former symptoms. On examination the uterus was found lower than at the last report; was immovably impacted in the cavity of the pelvis; the fundus turned backward; and the *os uteri* tilted forwards behind the upper part of the arch of the pubis.

‘I now looked on the case, as one of *retroversio uteri*, and, accordingly, endeavoured to reduce the malposition, but ineffectually. The attempt was attended with considerable pain; and, neither the tenesmus nor dysuria being at all urgent, I deemed farther efforts unadvisable. But recollecting the advantage formerly derived from the blister and tartrate of antimony, I repeated them with evident advantage, although less so than before; for the pain, in three days after, returned with a severity at least equal, requiring the large exhibition of opium *per os* as well as *anum*, thus for the time diminishing the patient’s torture.

‘At a loss what to do—the misplacement remaining, still seemed to threaten a relapse; partly therefore at random, and partly with the hope of reducing the irritation, I recommended a pill, composed of gr. ij. of calomel and gr. i. of opium, to be taken three times a day. From the commencement of these, no violent pain ever after occurred. In three days the mouth became slightly affected, when the pills were omitted. The uterine tumour, although not obviously diminished, became much less tender to the touch, and a bloody serous discharge (not inaptly likened by the patient to “moss water”) began to ooze from the uterus.

‘The symptoms, nevertheless, were still sufficiently urgent; when, about this time (the middle of January), Dr Baird saw her with me. He agreed with me in thinking the uterus retroverted; and ineffectual attempts were again made to reduce it. He suggested the possibility of very copious injections *per anum* assisting the efforts to raise the fundus; but all to no purpose.

‘A few days after, the above pills were again had recourse to, but less frequently taken; castor oil was occasionally exhibited; and small doses of cream of tartar and nitre given as a diuretic. The bulk of the womb soon began, very slowly, but evidently, to diminish; the irritation on the rectum and bladder in proportion abated; but the discharge alluded to, for a considerable time, continued in varied quantity: For which, she was recommended to use injections of warm water, infusions of chamomile, and so forth, dreading lest more astringent injections might reproduce the pain.’

‘Finally, although I long continued to think pregnancy to have been connected with her complaint; yet, to this day, there has never appeared any thing like the blighted remains of a foetus. I saw her in March 1817 in good health; free from discharge; the uterus, to the touch, in every respect natural; and I then learnt from her husband, that the first symptom of her complaints was an occasional *dolor internus ex coitu*. Within these few days I have heard of her since continuing well.

‘The above interesting case, it will readily be observed, was far from understood; and the impression left on my mind was far from satisfactory, till I had occasion to contrast it with the following.’

In this case the symptoms strongly resembled those above given. The patient was aged nineteen, and had been delivered about ten weeks before their occurrence. An examination *per vaginam* was made at once. ‘I then discovered the uterus considerably lower than it ought to have been; enlarged, as nearly as I could guess, to about the bulk of one’s fist; the fundus being directed backwards into the hollow of the sacrum; while the mouth, which was tumid and much indurated, was felt facing the lower edge of the symphysis pubis. The whole body of the womb was so tender, that she instantly screamed from the most trifling pressure on it; and when she attempted to walk, sit, or stand, she felt the greatest difficulty and pain. Her pulse was quick, small, more feeble than hard; and, during the night, she had several times been attacked with severe vomiting.

‘Being satisfied that neither urine nor feces were retained, for as to the former the catheter was introduced, my first object was to guard against inflammation. But ere 3 viii. of blood were drawn from the arm, my patient fainting, I was obliged to desist. I then endeavoured to allay the pain by fomentation and opium. With the view of reducing the morbid bulk of the uterus, I had recourse to the pills, already mentioned, composed of calomel and opium. As she felt easiest when lying on her belly, or

leaning on her knees and elbows, I strictly enjoined these postures, and forbid every thing but gruel and panado.

‘I left her with the expectation of her soon becoming relieved; and, the day following, was glad to find her comparatively easy. The uterus, nevertheless, remained *retroverted*; and, although less tender to the touch, was not perceptibly diminished in size. The irritation on both rectum and bladder were still distressing; and the *os uteri* felt so hard, that Dr King, who this day saw her with me, was inclined to suspect, notwithstanding the girl’s youth, the presence of scirrhus. He judiciously suggested the application of leeches to the external parts, and approved of the continuance of the calomel and opium. Ten leeches were applied, some within, and all in the neighbourhood of the vulva; the bleeding was full, and kept up for several hours; but alteration in the size of the uterus did not immediately become apparent, although it could be pressed on with considerable freedom.

‘On the 4th day from the commencement of the pills, the gums became slightly tender. The uterus still retained its malposition; yet it felt somewhat flaccid, and perhaps might have been replaced. The tenesmus and dysuria, in two days more, had almost subsided; and so well did she feel herself, that it required no small persuasion to dissuade her from leaving bed. The pills, at proper intervals, were continued so as to keep up a trifling irritation on the gums. And on the 16th day from the time I saw her, the uterus, although perhaps a little heavier, felt nearly as free and buoyant as in the healthy unimpregnated state. No discharge was at any time perceptible.’

A third case, imagined to be similar to the preceding is given from recollection.—This last case was fatal.

OBSERVATIONS.

1 *Nature of the disease.*—The following extracts contain Dr Robinson’s view on this head.—‘The occurrence of retroversion, I consider, is to be looked on as an accident, superadded to an altered state of the uterus previously existing; yet so suddenly and so alarmingly did this accident change the features of the complaint, that it required the most decided notice, and demanded the promptest assistance.

‘I am anatomist enough to know, that, in the healthy unimpregnated state, *retroversio uteri* cannot possibly take place; or, if it can, it certainly never could be productive of the distressing symptoms detailed in the two first cases. We know it occasionally to happen in early pregnancy. It has been reported, too, sometimes to take place in enlarged scirrhus uteri; also to accompany some states of diseased ovarium; and, in Mr Astley Cooper’s Treatise upon Hernia, notice is taken of a fatal case

which occurred to Dr Marcet, where, for six weeks, vomiting and constipation were the prominent symptoms; and, on inspection, the uterus was found retroverted without pregnancy—the fundus being turned into the space between the rectum and vagina.

‘In the cases before us (I allude but to the two first), that retroversion did exist, will not be denied; and there is proof sufficient, that no malignant disease affected the uterus of either. Further, that the uterus was enlarged, there can, I think, be as little doubt; and if so, could it be from any thing but simple chronic inflammation? In the first case, that disease and enlargement subsisted in the uterus, long before the retroversion took place, appears from the absence of the menses, the irritation of the bladder, the weakness of the back, and the uneasiness in the groins, which were present fully three months before the accident occurred. In the second case, from the lochial discharge having so prematurely ceased, the probability is that the uterus had never, since delivery, become fully reduced. The frequent inclination to pass water seemed proof of this; and this increasing, together with the uneasiness in the back and groins, afford at least presumption of preternatural irritation going on.

‘In such a state, then, do I believe the uterus of both patients to have been. Their rank in life requiring daily exertions, would not only prevent the abatement of the disease, but very likely assist in its progress. Accidents of various kinds might force the fundus below the promontory of the sacrum, from under which it could not be supposed easily to extricate itself, especially as the dysuria and tenesmus, instantly produced, inevitably must have excited that involuntary bearing down, which would not merely increase the malposition of the uterus, but, as it were, impact it into the cavity of the pelvis.

‘According to this view of the case, the uterus was already inflamed, or, if not strictly so, in such a state as to render the accession of inflammation both easy and almost instantaneous, from the new, and, as it were, strangulated position it had acquired, this position acting as a powerful source of mechanical irritation upon an organ already under morbid excitement; so that neither the suddenness nor violence of the attack seem incompatible with the *natura morbi* I argue.

Diagnosis.—What has already been remarked, may in a great measure supersede detail on this point.

‘*First.* It may be confounded with pregnancy. The uneasiness of back, belly, and thighs, the dysuria, and painful walking may be common to both; but, in the latter, there is generally no

discharge, and seldom the uterine pain and tenderness alluded to. The uterus, in both, may have descended somewhat; yet, in pregnancy, the os uteri is turned more backwards, and both it and the cervix for a considerable time feel natural. In very early pregnancy, the distinction will very difficultly be decided on; but fortunately, in both, the same treatment will equally avail.

‘*Secondly*, It may be confounded with more serious and intractable states of the uterus, as scirrhus and other malignant affections. The progress of these is more slow; the pain is not dull and constant, but shooting, occasional, and severe; the os uteri is generally more open, and often apt to bleed on trifling freedom being used; the time of life will assist; and the colour and expression of the countenance are too often indicative of the nature of the disease.

‘*Finally*, the state of the uterus will distinguish it from all abdominal and bladder affections. Where retroversion has occurred, proper attention to the malposition and extreme tenderness of the womb will sufficiently characterize it from threatened abortion.

‘3. *Treatment*.—From my observations on the nature of the disease in question, three indications would seem readily suggested.

‘*First*, To arrest the inflammatory action by low diet, evacnants, and bleeding.

‘*Secondly*, To allay the irritation by fomentation and opium.

‘*Thirdly*, To reduce the morbid bulk of the uterus by blisters, stimulating embrocations, strict confinement, and mercury.

‘Should the symptoms be trifling, a little confinement to the horizontal posture, spare diet, laxity of the bowels, the hip-bath, and, above all, abstinence from venery, will generally soon effect a cure. But should the symptoms be more urgent, especially if attended with fever, in addition to the above, bleeding, either locally or generally, must not be omitted. Again, should the slightest tendency to, or actual retroversion have occurred, we have to consider the case of a most serious nature; we have not only to remove the local inflammation, but to guard against its extension to the bowels. Yet the pulse seems to counter-indicate the lancet! But why do we ever bleed in inflammatory affections of the stomach and bowels? It is because we know these organs to be so essential to the well-being of life; that when, by inflammation, their functions are impaired, health or the general constitution does not only remarkably suffer, but there seems, as it were, such a tendency to speedy dissolution, that the depressing cause must instantly be removed. And do we not likewise

know that there are other organs, which, although not so immediately connected with life, are exceedingly liable to sympathize with those parts which are? Such are the lungs, the testes, and, I would add, the uterus, which, when diseased, very soon, or at times, immediately acquire a similarity in symptoms, especially in the quickness and lowness of the pulse. With the same propriety, therefore, I would urge, that in the present case, blood should be drawn, according to the duration of the complaint, and state of the patient's constitution—bating, of course, such a lowness of the pulse as may be indicative of death.

‘As to reducing the malposition by manual assistance, I feel satisfied, that, in cases so acute as those recited, it will generally be found impracticable. Nay, from the extreme sensibility of the uterus, such attempts may prove seriously hurtful.

‘Purgatives, when the symptoms are violent, I should think generally injurious, as tending to increase the tenesmus and bearing down; but where they are indispensable, small and repeated doses of the neutral salts, castor oil, and injections, as being less irritating, should alone be employed.

‘The hip-bath, in the form of heated water or vapour; the free use of opium, especially *per anum* or *vaginam*, will be found strikingly serviceable in allaying the local irritation.

‘With the view of preventing a relapse, by reducing the morbid bulk of the uterus, confinement to the horizontal posture must be strictly enjoined, and perseveringly continued, according to the obstinacy of the symptoms. But for this purpose, mercury must especially be relied on. In the form of calomel, it is perhaps the most convenient and speedy in its effects; and, by conjoining it with opium, the constitutional and local irritation are not only quieted, but (to speak figuratively) the bowels protected from the acrimony of the metal—a matter in this case of no small moment. Slight mercurial irritation is all that is desirable. As soon, therefore, as it appears, the medicine should be omitted, and small doses of neutral salts frequently given to prevent salivation. It is again, however, to be had recourse to and persisted in, till no indications for its continuance remain, which, in some more chronic cases, will not appear till the lapse of several weeks.

‘Of the utility of diuretics, I am doubtful; and unless the bladder participate in the neighbouring irritation, becoming painfully sensible to the acrimony of the urine, hence requiring this secretion to be rendered bland and inoffensive, I am rather of opinion the more this organ be kept at rest the better.’

INTELLIGENCE.

OPERATIONS IN THE MASSACHUSETTS GENERAL HOSPITAL.

*Inguinal Aneurism.**

THE operation on the EXTERNAL ILIAC ARTERY for the cure of Inguinal Aneurism, was performed by Dr. J. C. WARREN, in the MASSACHUSETTS GENERAL HOSPITAL, on the 20th February last, with some interesting circumstances. The aneurismal tumour was large, and extended upward into the cavity of the abdomen. When the muscles had been divided, and the abdominal cavity opened, the aneurism was seen rising so high, as to conceal the Iliac artery. From the anterior and inner part of the sac arose the Epigastric, giving origin to the Obturator artery, both of them greatly enlarged; the Epigastric trunk being equal to the common size of the Brachial. From the outer part of the sac rose the Circumflexa Ilii, also considerably enlarged. The Epigastric interfered much with the necessary dissection of the great artery; and the Iliac was exposed higher than usual; but the ligature was passed round it without difficulty.—The event of this operation was favourable. The limb never lost its warmth, sensation nor motion. The patient was restrained to his bed with difficulty till the ligature had separated; on the 19th day he was allowed to rise; on the following days walked about, and afterwards recruited rapidly.

Artificial Pupil.

A workman from an iron factory came to the Hospital, having his left eye in an inflamed and perishing state, in consequence of a piece of iron being driven into the globe of the eye, some months before. He had lost the right eye by a previous accident. After the inflammation had been subdued, it appeared that the cornea was opaque, and of a white colour

* We shall endeavour to obtain a more minute account of this operation for a future number.

on its internal face, and that the iris adhered to it firmly through its whole extent. The pupil was wholly obliterated. Desirous of relieving the patient from a state of total darkness; although the case was apparently a hopeless one, Dr Warren passed an iris scalpel into the eye through the sclerotic coat; then by the point of this instrument dissected off a portion of the iris, and of the opaque layer of the cornea; at the same time taking measures to cut in pieces the crystalline lens.—No great inflammation followed. By this operation, a semi-transparent spot, about a line in diameter, was formed near the centre of the cornea, through which light enough was admitted to discern many objects, and to enable the patient to walk about. His vision was improving at the time he left the Hospital.

*Painful Affection of all the nerves on one side of the face,
cured by repeated operations.*

Mr Soule, master of vessel, of Duxbury, aged 70, applied to Dr Warren, stating that he had a dreadfully painful complaint in the face, and that he wished an operation for his relief. It appeared he had first been affected, without any obvious cause, about fourteen years before. His pains were of two kinds; first, a constant aching pain which he compared to the worst toothache; second, a spasmodic affection which occurred many times during the day. When he had the latter kind of attack, the muscles of the face quivered, the face became red and swelled, the eyes were filled with tears, and his intellect was for the moment suspended. For the last four years he had not been free from pain while awake, and his sleep was short and interrupted.

On applying to respectable practitioners in the part of the country where he lived, they had advised and performed three operations, two on the sub-orbital nerve and its branches, the third on the nerve of the lower jaw where it comes out on the chin. These operations gave him a degree of relief; but the pain continued with a severity intolerable, and life had become a burden to him.

The pain he described, as beginning near the ear, and thence darting into the lower and upper jaw, the lips, eye, forehead and scalp. The patient had made himself acquainted with the situation of the nerves of the face, and believed his pain to reside in the facial nerve, which he wished to have divided.

He was informed that an operation such as he desired might be executed; but that in his case the affection appeared so

general that there was no great prospect of a cure ; and that in fact there were not any cases on record of a successful division of the facial nerve at its root, for this disorder.* As soon as the patient understood that the operation was practicable, he desired to have it performed : and agreed to enter the Hospital, on account of the superior advantages it afforded over any private situation.

The operation was thus performed. An incision two inches long was carried from the back of the ear downward in front of the mastoid process. The edge of the parotid gland was exposed on one side, and on the other the anterior edge of the mastoid muscle. The dissection being continued downward between the parotid gland and the mastoid process, the facial nerve was exposed where it crosses this space, and passes on the gland, it was divided and a portion cut out. When this nerve was cut, the muscles of the face quivered and were paralysed ; but the patient said he merely perceived the division ; that it was not attended with an acute pain ; and that the principal cause of his sufferings was not reached. Lest any nervous filaments might have been given off behind the point of division, the operation was thus concluded. The parotid gland was drawn a little forward by a blunt hook, and the space over the transverse processes of the vertebræ being exposed to view, and the occipital artery seen passing over them, every thing behind the parotid gland was divided to these processes. The hemorrhage of the occipital artery was restrained by compressure of the carotid, until it was secured. The wound was then closed, and dressed in a simple manner.

Subsequently to this operation, it appeared that the pain in the upper part of the face was diminished ; perhaps removed. But the patient now became sensible that the most acute pain, and that which probably had existed first, was seated deeply in the lower jaw, beginning at the zygomatic arch and shooting into the bone. It was entirely independent of the wound, made in the operation. From this wound he experienced no inconvenience, was unwilling to speak of it, and scarcely wished it dressed, so greatly was he disappointed at not being re-

* The *branches* of the facial have been repeatedly cut in front of the parotid gland ; but we are not aware that the nerve has been divided at its root. At least Mr Swan in his prize book, lately published, informs us that, 'to attempt to divide the trunk of this nerve will not only be very difficult, but it will likewise be very dangerous.' It is presumed he would have stated any instance of its division, which he might have known. The second operation mentioned in this article is we suppose entitled to the merit of novelty. ED.

lieved from his sufferings. He begged his case might be again taken into consideration, and something more if possible, devised for his relief.

A meeting of the consulting physicians and surgeons being called, Dr Warren proposed the operation, which is described hereafter, and it being agreed to, was performed nine days after the first.

An incision was made over the side of the jaw from the semilunar notch to the inferior edge of the bone. The parotid gland, being exposed, was divided as far back as possible, and turned forward. Then the masseter muscle was divided in the course of its fibres to the bone, and afterward, the edge of the knife being turned forward, some of the fibres were transversely cut, in order to make room over the bone. A trephine, three quarters of an inch in diameter was then applied, half an inch below the semilunar notch, midway between the anterior and posterior edges of the jaw: and the circular piece sawed through and removed in two parts, the external table by a lever, the internal by forceps. Between these pieces lay the nerve with its accompanying artery and vein; they were cut by the saw inferiorly, but superiorly were entire, at the point where they penetrate the bone. At the superior edge of the hole in the bone was seen the large internal maxillary vein, pulsating from the movements of its artery. The maxillary nerve being now raised on a probe, the patient directly exclaimed that this was the seat of his sufferings. Half an inch of this nerve was cut out, and on examination it was found to comprehend the branch given to the internal face of the lower jaw. The artery was tied without difficulty. The transverse artery of the face had been previously tied on each side the wound. A suture was employed to bring together the two parts of the parotid gland, and the wound closed by adhesive plaster.

The patient said that the pain of this operation could not be compared with that from his disorder. The pain on the wounding and dividing the maxillary nerve was most acute.

On the evening of this operation he was relieved from pain, the first time for four years; and had no return of it afterward. On passing a probe into the wound three or four days after, a branch of nerve in the masseter was touched, and a violent pain produced. This pain did not however return, nor had he any threatening of his former attacks. On the 19th day from the second operation, his wounds being nearly healed, he left the Hospital perfectly cured of his disease, with

the strongest conviction that it would not recur, and not a little gratified by his own perseverance.

LITERARY NOTICES.

DR EBERLE *on the Materia Medica and Therapeutics.*

THIS is another valuable contribution toward the improvement of a branch of medical science, which has of late attracted considerable attention in this country. Dr E.'s work is in two volumes octavo. It is arranged in a more scientific manner than many other works on this subject. The articles of the *Materia Medica* are classified according to their disposition to act on particular organs or textures; as, 1. Medicines that act specifically on the intestinal canal, or upon morbid matter lodged in it. 2. Medicines whose action is principally directed to the muscular system. 3. Medicines that act specifically on the uterine system. 4. Medicines whose action is principally directed on the nervous system. 5. Medicines whose action is principally manifested in the circulating system. 6. Medicines acting specifically on the organs of secretion. 7. Medicines that act specifically upon the respiratory organs. 8. Medicines whose action is purely topical.

BECLARD'S *Additions to BICHAT'S General Anatomy.*

IN our last number we gave an extract from Dr Hayward's translation of this work which was then in the press, and we are happy now to have it in our power to state, that it has just been published by Richardson and Lord, of this city, ornamented with a well executed portrait of Bichat. From the high reputation which Professor Beclard enjoys, as well as from the favourable character which has been given of his work in the British Journals, we are led to the belief that it will be found exceedingly valuable as a supplement to the admirable work of Bichat. In a future number of this Journal we shall present our readers with a full account of its contents.

The Physician's Pocket Synopsis ; affording a concise view of the Symptoms and Treatment of the Medical and Surgical Diseases incident to the Human Frame. Compiled from the best authorities, with references to the most approved modern authors. Together with the Properties and Doses of the Simples and Compounds of the National Pharmacopœia of the United States. Alphabetically Arranged. By J. S. BARTLETT, M. D. of the Royal College of Surgeons, London ; Fellow of the Massachusetts Medical Society, &c. Boston : 1822. 18mo. pp. 326.

THIS book does not belong to that class of compendiums, which profess to teach the whole mysteries of an extensive and important profession in a few pages. It is what it purports to be strictly a book of reference, for the medical student and young practitioner ; a sort of pocket remembrancer, to bring to the mind of the physician, at the moment he is to apply his knowledge to practice, what he has previously learned, and to exhibit to the student the sources from which he may acquire his knowledge on any given subject of investigation. With the account of each disease, is a list of authors on that disease ; and with the articles of the *Materia Medica*, are given the pharmaceutical preparations of each, and the doses in which they are to be administered.

The following extracts from the preface exhibit the design of the work. 'I was induced,' says Dr B. 'to compile the present work, from the circumstance of there being no publication extant, in our language, which comprises a brief outline of the symptoms and treatment of medical diseases, in the portable form of a pocket volume.'

'It is true, that some years ago, Dr Eliot of London, published a work upon a similar plan, which passed through six editions there, and three in this country, (a tolerably just criterion of its utility at that period,) but which is now nearly out of print. It was my first intention to review that work, and to print a fourth American edition. Upon examining it, however, I found it so obsolete, and so incompatible with the doctrines and practice of the present day, as to preclude all prospect of benefiting the profession by its re-publication. I therefore determined upon the present undertaking, the utility of which must be left to the judgment of others.'

'In this compilation, I have consulted the works of most general reference ; adding whatever appeared important, and my limits would permit, from other modern books within my reach.

It need scarcely be remarked, that in a such work, all elegance of language, even were I capable of any, must be sacrificed to brevity.'

'If, however, with all its faults, this work may be found of any service to the medical practitioner, as a sort of prompter to the memory, or ready-reckoner to his practice, during the fatigues and hurry of his professional avocations, whatever trouble I may have taken in the compilation will be amply compensated.'

'To the student I flatter myself this pocket volume must prove useful; for, by perusing a brief sketch of the symptoms and treatment of a particular disease, the facts and principles are more readily comprehended, than if read in a more elaborate work. Thus the student will acquire a general outline of his subject, will mould it, if I may so express myself, to his mind, while to fill up the colouring and finishing he may have recourse to the more copious writers referred to in every page.'

It is not necessary to go into a critical examination of the merits of this work, to recommend it to the notice of that class of readers for whose use it is designed. Without professing to teach any thing that is new, the author has brought together a variety of practical information, in a convenient form for reference at the moment when it is wanted.

The following extracts are offered as a specimen of the work.

'**DYSENTERY.** *Dysenteria.* When this disease appears in prisons camps; &c. or is attended with fever of the typhoid type, it is certainly contagious; but when it occurs in the simple form in solitary cases, its contagious nature may be doubted. It is frequently blended with intermittent and remittent fevers, in those countries where these fevers prevail. It also becomes endemical in the vicinity of marshes;—is most frequent in the autumnal season and warm climates. There are two distinct stages of dysentery; the acute, where fever and inflammation exist, and the chronic, where these are subdued and the disease is kept up from habit, and debility of the intestines.

'*Symptoms.* Pyrexia, either of the synocha or typhoid type, frequent inclination to go to stool, attended with fetid discharges of mucus, sometimes of pure blood, often both, and occasionally indurated masses of feculent matter in balls called scybala, which always afford temporary relief. After the disease has continued long enough to produce ulceration and gangrene of the intestines, the discharge consists of pus, or putrid sanies, films of a membranous appearance, or sebaceous matter floating on the surface of liquid matter. In addition to these symptoms there is a distressing tenesmus and bearing down, flatulence, nausea, vomiting, and, just before each stool, most severe cutting pains; emaciation, debility, constant thirst, tongue very dry,

foul, and often black, teeth loaded with sordes, hiccough, putrescency, and death often in a few days. *Causes.* Specific contagion, cold and moisture after intense heat; noxious exhalations from stagnant water; unwholesome food. Its *proximate* cause is an inflammation of the mucous membrane of the intestines. *Prognosis.* *Favourable*—A warm and general perspiration, stools becoming more feculent and attended with less pain and frequency. *Unfavourable*—Increased severity of the symptoms, aphthæ, petechiæ, tongue foul and dry, coldness of the extremities, convulsions, &c.; occurring in the advanced stages of other diseases, as scurvy, &c.

‘*Treatment.* If the concomitant fever be of the synocha type, and the patient be moreover young and with a full pulse, it will be necessary to draw blood from the arm, cautiously however repeating the operation from the tendency of the fever to become typhoid, and from the quantity of blood which is often lost by the bowels. The object must be, after having cleared the stomach by an emetic, to remove the scybala from the bowels by means of gentle purgatives of rhubarb, with or without calomel, neutral salts or castor oil and frequent emollient clysters. Ipecachuana in small and repeated doses, joined with calomel is found a very useful purgative. Purgatives indeed must be continued until all the scybala are removed. The patient, however, is to indulge the inclination of going to stool as little as possible, and, when there to avoid straining all in his power. The cerated glass of antimony has been much used for evacuating the stomach and bowels. Diaphoretics, fomentations and blisters to the bowels are proper. To relieve pain and irritation, give opium, hyosciamus, glysters of starch and opium, use the warm bath, pass a pill of opium into the rectum; the patient taking plentifully of chicken broth, sage, flaxseed tea, acacia gum, &c. When the pain, fever and tenesmus are removed, we may begin with astringents, joined with tonics, as kino, catechu, logwood, cascarilla, columbo, with the addition of aromatics and port-wine, to put a final stop to the disease, and to prevent it from becoming chronic. If typhoid symptoms threaten, the nitric acid joined with opium may be advantageously exhibited, together with other powerful antiseptics.

‘When we are called upon to treat chronic cases, which are always obstinate, it is of the utmost importance to discover and remove any other disease with which they may be complicated.—Thus if the liver be affected, which may be known by whitish or clay-coloured stools, yellowness of the skin, &c. we are to put the patient upon a gradual and continued course of mercury, giving at the same time tonics, astringents, with a light and nutritious diet, advising moderate exercise, good air, and, if in a hot climate, a removal to a colder one. If Dysentery be complicated with intermittent fever, the cinchona bark and other treatment under that head will be proper.—Warm clothing, particularly about the bowels and feet, is very necessary. Malt liquors and vegetables are

quite improper.—Where the disease is contagious, care must be taken to remove each stool immediately from the apartment and to bury it. Fumigation and ventilation must also be employed. Consult *Hartley's observations on Dysentery*. *Pemberton's Treatise on the diseases of the abdominal viscera*. *Dewar on Diarrhœa and Dysentery of Egypt*. *Huxham, Mosely, on tropical climates*. *Johnson on do*. *Gallop, sketches of epidem. diseases of Vermont*.—pp. 117–119.

'DELIRIUM.* This is the generic term of the different forms of this disease. The sensations are not in relation with external objects, the ideas with present sensations, the judgment with present ideas: the judgment and ideas are involuntary. Ideas furnished by imagination intrude themselves in crowds, so that their analogy and difference cannot be seen. The sufferer takes a windmill for a man, a hole for a precipice, clouds for cavalry. Unable to command his attention, he is the sport of hallucination, unites incongruous ideas, adopts determinations and language contrary to his and society's usage. Sometimes he sees his delusion as soon as it is pointed out to him. Sometimes every thing around him strengthens it. If delirium is stronger than the senses' ordinary influence, he is not easily undeceived; becomes irritable. In the forms of delirium called mania, loquacity, carphology, somnambulism, it shows itself in the organs of motion, which are at rest in the form of ecstasy.—Every organ can act to produce delirium. It often follows great excitement of the passions. From acquaintance with all diseases in which delirium appears, we are to seek the cause of its varieties, and the principles of cure. Its seat is unknown. Some people are delirious under the least febrile action; and most dying people.

'1. FEBRILE DELIRIUM. There are few diseases, in some cases of which febrile delirium does not appear, and proportioned to the severity of the other symptoms. It often follows great wakefulness, sense of weight over the stomach, anxiety, great sensibility of hearing and sight, vertigo, headach, sparkling eyes, ferocious look, tremour of the tongue, gnashing of the teeth, total occupation with subjects on which the sufferer is unaccustomed to think, sudden loss of memory. Change in gesture, sort of discourse, manners, habits, character, affections, point out a first degree of it. Gay delirium is least formidable: if the sufferer neglects his preservation, throws aside food and medicine, his state is grievous. He commits suicide, oftener than is commonly believed, like a maniac. The general appearance, and determination of delirious people are often very like those of the dying. Fevers of a bad character sometimes leave after them a chronic delirium, which predisposes to insanity. Great flow of ideas sometimes attends acute disease; things long forgotten

* Je me renferme dans les bornes de la plus aride et de la plus froide exposition. Chaque proposition est reduite à son expression la plus simple. Un langage aphoristique doit servir d'exemple en médecine; chaque objet de recherches en montre la nécessité. PINEL.

are recollected; a wonderful force of imagination raises the dying man above his own intelligence, gives him the tone of inspiration; his understanding, especially if he be young and emaciated acquires unaccustomed force and energy: he astonishes the hearers by discourse of which he was thought incapable. These observations are derived from Dr Esquirol.—pp. 82, 83.

Dr Parkman has requested that the following should be added to the above observations from Esquirol in Dr Bartlett's Synopsis.

On trouve dans ses leçons beaucoup de justesse, des vues élevées, des aperçus ingénieux, des descriptions qui prouvent que rien de ce qui intéresse l'humanité n'a échappé à la pénétration de l'auteur. On y reconnoît un médecin philosophe et expérimenté. Il serait difficile de décider s'il y a plus de philanthropie que de talent, ou plus de talent que de philanthropie.

TO READERS AND CORRESPONDENTS.

Communications have been received from Drs Ware, Smith, Porter, and Long. They will appear in the next number of the Journal.

A very extraordinary case of self performed Cæsarian section was also received, but has been accidentally mislaid. This case occurred in New York, in quite a young subject. If our memory serve us, she was but 14 years of age. She performed the operation, it appears from the report, with a razor. She was delivered of twins. She was alone, but from some circumstances the reporter is disposed to think one of the twins was delivered *per vias naturales*. The patient recovered. It may be remarked in addition, that this communication is an Official Report from a district Medical Society in New York. It was communicated in the same way to our contemporary the New York Medical Repository, and unless a similar accident to that which has occurred to us, has happened to the New York Editor, the profession may still be favoured with this extraordinary case.

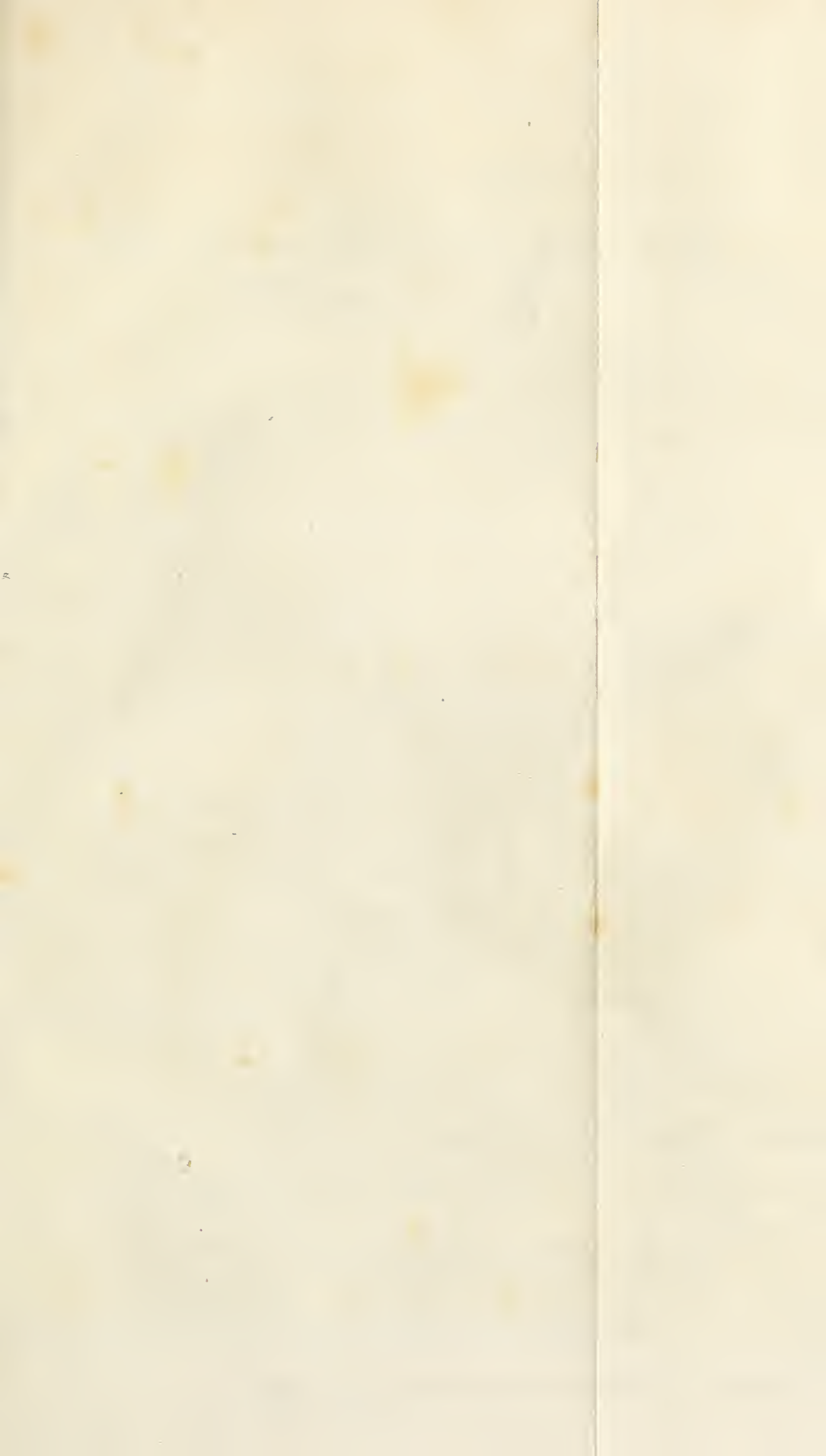
Reviews are in preparation of Chapman's Therapeutics and Materia Medica; of Bailey's Report of the Yellow Fever in New York; of Beclard's Additions to Bichat, &c. &c.

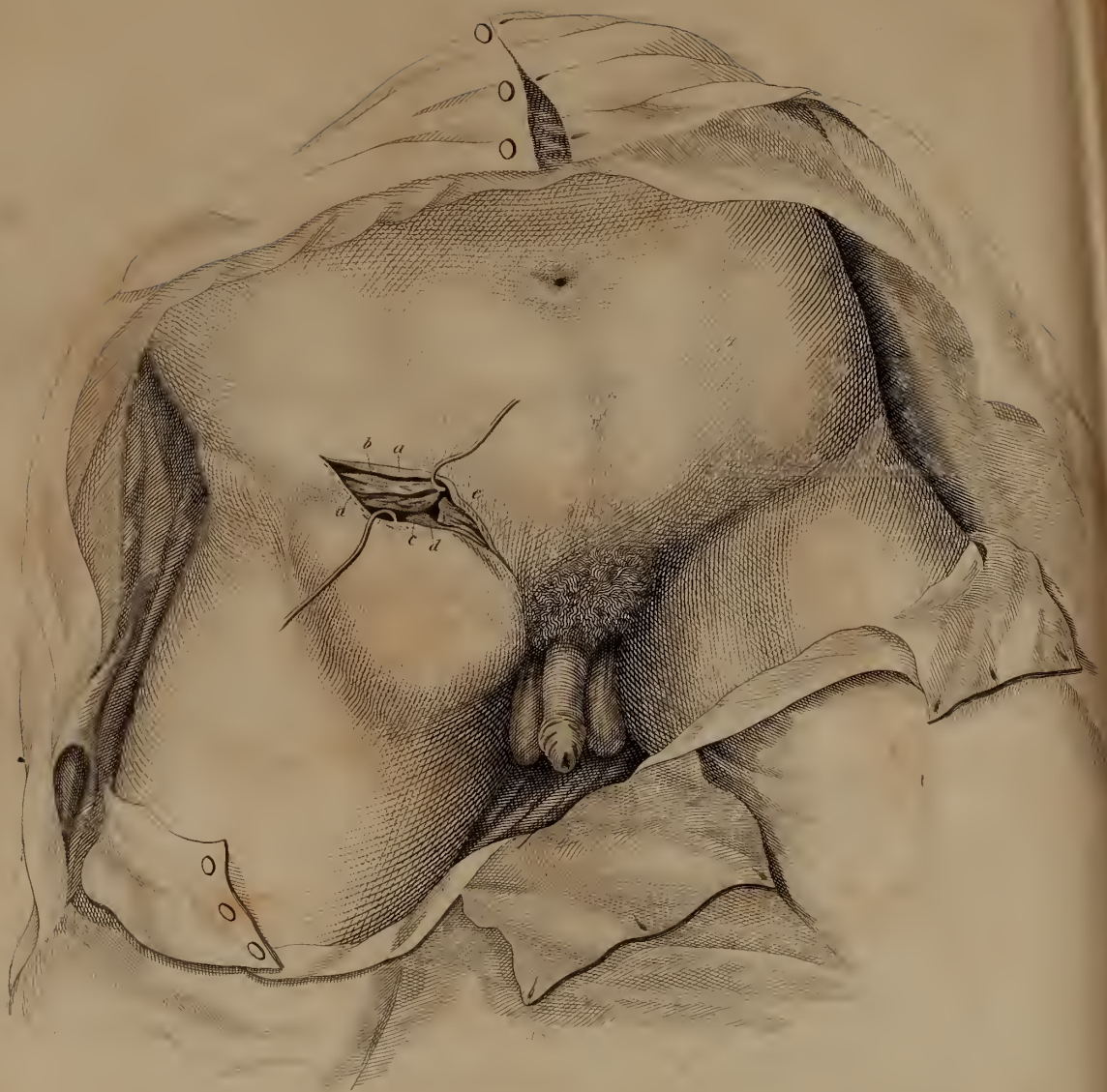
Dr Ware has in preparation a new edition of Smellie's Philosophy of Natural History.

ERRATA.

The Article *Delirium* from Dr Bartlett's Synopsis, should have preceded the Article *Dysentery*.

In part of the impressions, p. 207, l. 13, for '*to analogous*,' read '*analogous to*.'





Dr Warren's case of Ligature of the External Iliac Artery.

The New-England Journal

OF

MEDICINE AND SURGERY.

Vol. XII.

JULY, 1823.

No. III.

CASES AND OPERATIONS IN THE MASSACHUSETTS GENERAL HOSPITAL.

A case of Aneurism cured by ligature of the External Iliac Artery. By JOHN C. WARREN, M.D.

[WITH A PLATE.]

[Communicated for the New England Journal of Medicine and Surgery.]

THIS operation was performed in the Massachusetts General Hospital; and the diary was taken principally from the Hospital record book. kept at that time by Dr. James M. Whittemore. To those who read from curiosity, this account, though greatly abridged, will appear tediously minute; but such as are called on to do this operation for the first time, will, I believe, be of a different opinion.

REFERENCES TO THE PLATE.

- a. a. Edges of the skin and cellular membrane drawn aside by hooks.
- b. Inferior tendinous portion of the external oblique muscle, elevated by a hook.
- c. c. Lower edges of the internal oblique and transversalis muscles of the abdomen, the fibres of which are divided transversely.
- d. Aneurisimal tumour in the cavity of the abdomen.

WILLIAM CHASE of West Newbury, 39 years of age, mariner by profession, of healthy constitution, not addicted to the use of ardent spirits, entered the Hospital on the 12th February 1823. About five weeks before, he lifted a weight nearly of seven hundred pounds, without at the time feeling any inconvenience; but about two weeks after this effort, he noticed a pulsating tumour in the right groin, which increased with great rapidity. He immediately applied to Dr. Robinson, who advised him to come at once to the Hospital.

On placing the hand on this tumour, a violent pulsation is felt accompanied with a thrilling sensation: the tumour is very hard, but yields to a strong and continued pressure. Although placed in the groin, it rises high enough to cover the edge of Poupart's ligament. He experiences great pain in the loins, which increases daily; and has also pain in the tumour, though moderate compared with the former. The limb is swelled. His strength and appetite have failed; he can get no sleep without opium, and is anxious to have an operation performed, as soon as possible, although informed it cannot be done without danger.

Feb. 18., 12 o'clock, the operation was performed in presence of the medical gentlemen of Boston and its vicinity, and of the Medical class, attending the lectures. The patient was placed on the operating table in the Hospital theatre; the leg of the affected side, raised by a pillow, on account of the pain given by the pressure of the fascia lata and the tendon of the external oblique muscle on the tumour. An incision was then made from a point about two inches within the ant. sup. sp. process of the os ilii, and carried downward and inward to a point near the abdominal ring. It was my wish to have exposed and opened the ring; but this was impracticable from the tumour rising up over it. The skin bled copiously, notwithstanding the most considerable vessel was tied: through the blood therefore I dissected the cellular membrane, exposed the tendon of the external oblique, and opened it upward and downward, an extent of three inches in the whole. The fleshy substance of the internal oblique being thus uncovered, I was disappointed at not perceiving the spermatic cord, a circumstance, I suppose, to be attributed to the extraordinary tension of the muscular fibres in this man, together with the concealment of the ring and of Poupart's ligament by the tumour. Whether the difficulty was peculiar in this case or not, I am unable to say; but it caused me the only embarrassment I experienced in the operation. The fibres of the internal oblique muscle were therefore very carefully dissected, transversely first, and then parallel to the ligament; by which the muscle was sufficiently raised to expose the

spermatic cord, and to allow it to be protected and drawn upward by a blunt hook. The fascia of the transverse muscle was now exposed, presenting itself very prominently from being raised by the aneurism. This fascia was much too firm to be torn or pushed aside. It was necessary first to puncture and open it with a director and knife, over the tumour; and thus the aneurism was laid bare, in the middle of the wound. With the handle of a knife the fascia was pushed upward in order to expose the artery; but before this could be accomplished, I perceived the epigastric artery proceeding out of the tumour, lying nearly in the direction of the main artery, greatly enlarged so as to be equal to the brachial, and giving off another great artery, about half or three quarters of an inch from its origin from the sac, which was the obturator artery. Turning from this, to the outer part of the sac, I soon perceived a large vessel lying there, which proved to be the circumflexa ilii enlarged, and taking its rise also from the aneurismal sac. Between these vessels, great caution was required in removing the parts covering the artery; and in doing it a vein was ruptured, which, for the moment threw out much blood, and was probably one of the circumflex iliac veins. Laying aside the handle of the knife, I passed the finger under the fascia, distinguished the great artery, and pushing up the peritoneum and fascia immediately covering it, exposed this vessel about where it lies on the brim of the pelvis. Now having a fair view of the iliac artery, I punctured the sheath over the middle of the artery, and passing an aneurism needle through the orifice, readily separated the sheath from the artery. A ligature of four threads was carried round the vessel and tied with two knots as tight as possible about an inch above the sac. On the ligature being drawn tight, the pulsation of the tumour ceased; the patient had no pain at the moment. The sides of the wound were approximated and secured by adhesive plaster and bandage, and the patient carried to his bed. The limb was flexed, supported at the knee and covered with cotton wool.

Three P. M. Says he felt immediate relief when the ligature was secured. Limb, though chilled from exposure during the operation is now quite warm. P. 95.

Nine P. M. Has some pain in the loins and in the tumour; and also through the limb. No difference in the temperature of the two limbs. P. 100 soft and moderately full.

Feb. 10. Had a pretty good night. Pain in the back less, in the limb very slight. Limb continues warm. P. 100 hard, somewhat weak. Takes a little water gruel. To be bled eight ounces.

R	Magnesiæ Sulphatis	3 vj.
	Aquæ distillatæ	f. 3 iv.
	Tincturæ Menthæ pip.	f. 3 ss.

F. haustus statim sumendus.

Seven P. M. P. 116. Medicine has operated slightly. Feels a little numbness above the knee; in other respects, is more easy and comfortable than at any time since the operation. Tongue clean. Some thirst. Takes tamarind water for drink.

20th. Very little sleep last night; limb warm; complains of tenderness on pressure between crest of the ilium and short ribs, and towards the umbilicus; felt relief from yesterday's bleeding; very little appetite; no nausea; headach, but mind calm; is uneasy and disposed to be throwing himself about the bed; a little pain in the wound, none in the back or limbs; tongue coated; feels very weak; had a diarrhœa last night, which has ceased this morning.

To be bled twelve ounces. If the diarrhœa returns, to take twenty drops of the tincture of opium.

Two P. M. More calm, and feels better, P. 124 less full and hard.

Five P. M. Temperature of limbs by thermometer, as follows; right limb below the groin 98°, at the sole of the foot 96°: left limb below the groin 96°, sole of the foot 94°. Soreness of the abdomen continues.

Applicetur emplastrum vesicatorium hypochondrio dextro.

21st. Feels better; pulse 112, less hard and full; no evacuation.

R Hydrargyri Submur. grana v.

Pulveris Jalapæ grana viij.

Sumat statim.

22d. Medicine operated favourably. P. 116 while sitting in bed. Wound examined, found united, except at the ligatures. Very restless and uneasy in bed.

23d. Better to day; p. 96 more soft and uniform; tongue clean and less dry; some appetite; limb warm; scarcely any pain; tumour much diminished.

Sumat. Pulv. Rhei grana xv.

in Syrup simplice f. 3j.

24th. Excessively restless and tired of his bed; pulse somewhat quickened; countenance anxious.

R Magnesiæ Sulphatis 3vj., etc. ut antea.

May sit up with the foot supported in a chair.

25th. Slept better last night than since the operation, countenance improved--tongue more clean and less dry, p. 84, limb warm and free from pain, feels no pain in any part.

March 9th, 18 days from the operation, ligature came away from the artery. Aneurismal tumour very small.

On the 11th he was allowed to get out of bed and stand up. On the following days he walked moderately about the ward; but availing himself of his liberty to too great an extent after the wound was healed, he disturbed it, caused a separation of its edges and a pretty copious discharge of venous blood. This greatly alarmed and agitated the patient and in consequence he had a considerable degree of fever. The discharge of blood continued for three or four days and injected the surrounding cellular membrane so that the wound afterwards healed slowly. Finding his apprehensions in regard to the bleeding were not well founded, he recruited rapidly and the wound closed again without any other accident.

REMARKS.

The manner in which this disease was formed and the rapidity of its growth, convince us that the coats of the artery were ruptured by the violence of muscular effort: and that the dilatation consisted in an expansion of the surrounding cellular sheath.

The operation would have been much facilitated by opening the abdominal ring, as this would have at once exposed the spermatic cord, which would thereby have been secured, and served as a guide to the subsequent step of the operation; but in this case the rigidity and power of the muscular fibres were so great, that they completely effaced the swell of the cord, although its place was sufficiently uncovered. The fascia transversalis had great strength, and this fascia or some of its processes so well guarded the peritoneum, that this membrane was not in any part exposed or uncovered. The peculiar situation and the enlargement of the epigastric artery were circumstances calculated to cause embarrassment and danger; in fact the epigastric appears to be generally more exposed in this operation, than in that for strangulated hernia.

The singular occurrence noted in the latter part of this case, the yielding of the cicatrix had nearly produced the most serious consequences; for independent of any real danger, the patient, although previously firm, came near dying with terror. It shows the necessity of restraining those who have been the subjects of such operations, until they are perfectly sound and strong; and nothing but the uncontrollable restlessness of my patient would have justified a permission to rise from his bed at the early period he did.

A case of Tubercles in both the chest and abdomen, terminated by hydrocephalus internus. By JAMES JACKSON, M.D. Professor of the Theory and Practice of Physic in Harvard University.

[Communicated for the New-England Journal of Medicine, &c.]

WM. STEWARD (Stone Cutter,) a native of Scotland, aged 28, entered the hospital Feb. 26, 1823.

He traced his sickness to a cold taken three months since; but we learnt from his friends that he had indulged too freely in the use of ardent spirits. He had cough, sometimes attended by expectoration, but not in great quantity. The cough was very irregular; much more on some days than on others, and sometimes violent, but more often slight. The matter expectorated was a thin serous fluid with some adhesive mucus. The cough was occasionally followed by vomiting of green or yellow bile in the morning. This he stated on entering the hospital, but the vomiting seldom occurred after that till the 7th of April.

He had some hoarseness and a sense of tickling sometimes under the middle of the sternum. He was free from pain, his respiration found to be easy, and he could take in and hold a full breath tolerably well; but sometimes this would excite a cough. His appetite was generally moderate, not very good. He complained of some thirst, or rather of dryness in the throat. His tongue was clean and moist; his skin generally temperate, not dry; his pulse from 92 to 120, soft and small. He had not any hectic paroxysms. He was prone to costiveness, and medicine seldom operated on him very fully; but he did not require large doses. Twelve grains of the pill of aloes and colocynth would not always procure a copious dejection. More than once he complained of pain and distress from a very costive stool.

The thorax was examined by percussion and by the stethoscope. Nothing unnatural was discovered by either of these methods.

His countenance was not very morbid and at times looked almost well. He did not appear greatly emaciated; yet stated that he had lost considerable flesh. His muscular strength was not so diminished as to give a morbid character to his motions. He seemed rather to have languor than great debility. His spirits were generally good, and he often represented himself as almost well.

Perpetual vesication on the breast was ordered and other usual remedies. The diet was mild and costiveness was guarded against. The appearances in the patient fluctuated considerably. On some days he appeared more sick without making much complaint. This happened most when he was in any measure costive. His cough was so slight at sometimes, that he stated that it had left him. At other times it suddenly grew worse and was very violent for an hour, or several hours.

On the 30th of March, he began to make some complaints about his head; but they were so slight as not to arrest much attention, although they were recorded. He first complained of dizziness when arising suddenly from bed. As he was taking digitalis at that time, this symptom was referred to that medicine. About this time the bowels began to be moved more frequently than before. It seemed at first as if they had grown more sensible to the influence of medicine; but the diarrhoea increased from the 30th of March to the 5th of April, during which he took one drachm of sulphate of magnesia a day. At first he did not complain of pain with his stools; but on the 5th April it is recorded that the diarrhoea had increased very much, that the stools were small, accompanied by severe pain in the region of the sacrum and by tenesmus. On the 3d he had some symptoms of disordered stomach; when he took a gentle emetic and omitted the digitalis. He took castor oil with tincture of opium on the 5th, and got some free stools without pain and with relief.

On the 6th April he was comfortable, but said his head was a little strained by coughing. At 4 p. m. this day he was seized with severe pains in the bowels, with great flatulency. This affection would no doubt have attracted more attention at the time, had it not been explained by an error of diet, of which he had been guilty. Notwithstanding his stomach had been disordered a few days before, he had on the 5th and 6th eaten several large apples.

He vomited spontaneously and four times very largely. The matters ejected were apples with other food and bile. He had one small stool afterwards. He took some castor oil and threw it off. At night he was quieted by opium.

The next morning he was flushed and uncomfortable, but had not much pain. He had then some tenderness in the abdomen upon pressure, but not more than was explained by the apparent accident of the day before. A dose of calomel and pills of aloes and colocynth were now ordered, and these procured one sufficient stool.

On the 8th he is recorded as feeble, but free from pain. On the 9th and 10th he complained of headache. The slightest cough affected his head. A blistering plaster was applied on the neck and gave some relief.

12th. Headache increased on motion. P. 116, countenance pale. No nausea. Some soreness of abdomen; this was increased by motion.

From this time the headache grew more severe, but was not constant. On 14th the pupils were contracted. From this time the pulse became less frequent than heretofore, and acquired more firmness and hardness. On the 18th they were 68; on 20th, 64. On the 19th he was delirious. On 21st P. 56. intermittent and irregular; watchful, hands tremulous, picking and pulling bed-clothes. Eyelids not closed in sleep. Pupils rather dilated, strabismus.

From this time the symptoms of effusion on the brain became more constant and unequivocal, and he died on the morning of the 26th April.

Appearances on examination of the body made 20 hours after death.

The body was considerably emaciated, but not extremely. On percussion every part of the chest resounded well, though rather less clearly about the clavicles than in other parts.

In the head the ventricles were distended with a very transparent watery fluid, and there was some similar fluid at the base of the cranium. The *plexus choroides* was very pale. The brain generally was rather soft. The vessels were not unusually distended.

In the chest the right lungs adhered in almost every part to the parietes, and the lobes to each other. The adhesion was especially strong to the diaphragm, and when the parts were separated, the pleura of the diaphragm was of a deep, purplish colour. The whole lungs on this side felt as if they contained shot. This arose from the presence of tubercles, none of which were as large as a small pea. Near the apex the tubercles were very numerous, but they had not yet become connected by any effusion into the cellular membrane. None of the tubercles had suppurated, generally the lungs crepitated on handling them, though not so much as if perfectly sound. A small portion, (between one and two cubic inches) of the middle lobe was indurated in some measure, and being divided was found to be very vascular. The vessels of this portion poured out blood freely, and the bronchia a frothy fluid. There were not many tubercles in this portion.

On the left side the lungs did not adhere, except by a small band at the apex. On this side also the lungs were thickly studded with tubercles, but these were not so large as those on the right side. On both sides the tubercles were less numerous in the inferior, than in the superior portions of the lungs. The heart appeared to be natural.

On the portion of the pleura covering the right side of the mediastinum, after detaching from it the lungs, which adhered closely, the appearance was unusual. This portion of the pleura felt rough, like a coarse grater. This roughness arose from the presence of small tumours, which may be called tubercles. These tubercles were about the size of the head of a large pin. They appeared to be seated in the serous membrane; not on it.

The abdomen was opened without an expectation of finding any remarkable appearances of disease, but on endeavouring to raise the parietes it was found that they adhered closely to the viscera. On further examination it was found that a great part of the peritoneum was diseased in the same way as the pleura on the right side of the mediastinum, only in a greater degree. This disease was least evident in the hypogastric region. In the upper part of the abdomen and on the sides, the adhesion was particularly strong, and the peritoneum much thickened. The colon was greatly enlarged and distended and it was to this intestine the peritoneum of the parietes was most closely attached. Over a considerable extent the peritoneum seemed very much thickened and greatly altered in structure. Some parts were more than a quarter of an inch in thickness. The omentum could not be found, and from this cause I thought that its substance might be involved in what seemed to be thickened peritoneum. But there was nothing in the appearance of the parts to justify this supposition.

The different portions of the intestinal canal were closely united by a membranous substance. But this substance was, for the most part at least, free from tubercles. The stomach was hidden by the distended colon, and the anterior surface of that organ, when exposed, was found to be studded with tubercles, and its peritoneal coat was a little thickened. This did not adhere to the intestine which lay over it. The peritoneum of the liver was, at least so far as it was examined, in a sound state. The gall-bladder however had its whole external coat diseased like that of the stomach. The substance of the liver was in a natural state.

REMARKS.

In the brain the appearances of disease were less than I had expected. The watery effusion fully accounted for the last symptoms and for the death. Yet I had thought that there would be some other appearances of inflammation, although I should have been surprized to have found those appearances very strongly marked. The softness of the brain could not be considered as the effect of disease. It was a little more than is most commonly found; but not more than I have often seen, where no symptoms or suspicion of disease in the head had existed during life.

In the lungs the appearances of disease corresponded with the symptoms during life. I had felt assured that some organic changes had occurred in the lungs, but that there was not any suppuration and that there was not any extensive compression of the air-cells.

In the abdomen the appearances were such, as had not been at all anticipated. It was an instance of the disease so well described by Dr Baron, and undoubtedly, if the patient had not been cut off by the hydrocephalus, the symptoms of the disease in the abdomen would have manifested themselves in the painful manner, which that author describes and which I have seen in others. But it is surprizing that the patient had not made more complaint under the disease, which did exist. The case serves to show that this malady may in some instances make considerable progress, like the similar disease in the lungs, without being attended by well marked local symptoms. The emaciation in this patient was not very great; and the countenance had not that very morbid character, which is commonly noticed in organic diseases of the abdominal viscera. Indeed had it not been for the very frequent pulse, which was always found until the brain became diseased, I should not have been satisfied that he had any organic affection.

Case of Apoplexy. By CHARLES G. ADAMS, M.D.

[Communicated for the New England Journal of Medicine and Surgery.]

IN December last, at six o'clock in the morning, I was called in haste to a farmer, aged about 32. I found him in bed, stupid, his face pale, respiration slow, but without stertor; his pulse at the standard of health, in respect to frequency, small and feeble. On rousing him, he opened his eyes, the

pupils of which was much contracted; and on being asked if he felt pain in his head, he indistinctly articulated an affirmative, and sunk again into the state of somnolency from which he was roused, occasionally changing his position in bed, and trembling slightly as if from chilliness. His wife informed me that he went to bed the evening previous in apparent health; that about five o'clock in the morning, he rose from bed and went to the window of the adjoining room to observe, as he said, the height of the moon; and said his head did not feel well. He soon returned to bed, and immediately she was alarmed by the noise he made, which she found was occasioned by his breathing, his neck and arms being affected with strong spasm. These symptoms soon moderated, and he rose from bed and groped about the house from one room to another unconsciously. After getting him again to the bed, he remained as I found him. His health until this attack had been uniformly good, and his habits regular. His work the day previous had been perhaps rather less than usual. His person was tall and not fleshy; his walk moderate, with a downward look. He remarked to his wife, a short time previous to this, that he had never experienced a headach.

With some difficulty he swallowed two spoonsful of a solution of tartarized antimony. After fifteen minutes he puked slightly, and catharsis soon followed. In puking he changed his position, so as to lean his head over the side of the bed, but seemed unconscious of the operation upon the bowels. Soon after this the pulse gradually became more full and strong, and the inspirations deeper, with some degree of stertor. Spasms seized the muscles of the neck and trunk, and extended the right arm by the side, the left arm being very slightly affected. Respiration became very vehement, and the stertor increased to a most violent degree. These symptoms soon abated, and I took from the arm sixteen ounces of blood.

The symptoms again increased as before; frothy saliva issued from the mouth and was forcibly blown away from the lips, and the noise made in breathing was like that of air powerfully driven through a large metallic tube. The abolition of sense and voluntary motion was now complete. The pupil of the right eye was dilated, that of the left remaining contracted, both without motion. I opened the right temporal artery, which bled very freely, and was not compressed till the pulse became small and the face exanguious, which had previously acquired more colour with the increasing fulness of the pulse. Stimulating and cathartic injections were used, which produced evacuations, and sinapisms were applied to the feet. It was now

noticed that the inferior extremities were extended by the spasms. In this symptom there were occasional remissions; the right arm was frequently strongly extended, while the muscles of the left were at rest. The pulse soon acquired greater frequency, fulness and hardness, than at any time before. The pressure was removed from the temporal artery, which immediately threw out its blood with rapidity, again producing paleness of the face, and materially diminishing the energy of the pulse. The whole amount of blood taken from the arm and temple was probably forty ounces. It was not accurately measured, regard being had less to the quantity taken, than to the effect of its loss. A vesicating plaster was applied to the nape of the neck. At intervals, respiration gradually abated in violence, until for a space of time sufficient for two or three inspirations it entirely ceased, and then as gradually returned to its former character, the pulse being in no degree affected by the intermission. The pupil of the left eye now became dilated equally with that of the right, and the eye in a slight degree directed outwards. Both eyes were inflamed; the right more than the left. The nose was studded on each side by the sebaceous secretions which the contraction of the skin had forced from their places. At half past 12 M. cold applications were made to the head, the face being very red; the pulse without becoming full as before, increased rapidly in frequency till it could not accurately be counted, and all spasm had ceased. The case terminated in death, at fifteen minutes before 2 P. M. about nine hours from the first occurrence of the symptoms.

Dissection, four hours after death.

On removing the superior part of the cranium, the vessels on the surface of the brain appeared turgid with black blood, obvious through the dura mater. This membrane being laid back, black blood was seen extensively effused under the arachnoid on the anterior lobe of the right hemisphere. Portions of this hemisphere were removed by horizontal sections, and the intergyral spaces of the anterior lobe found distended with black coagulated blood, to the measure of four ounces. The right lateral ventricle contained no water; its sides were closely collapsed, and exhibited no particular mark of inflammation. On opening the left ventricle it discharged between three and four ounces of water slightly coloured with blood. The veins on its floor were distended in a small degree. Preternatural turgescence was observed rather in the velum vasculosum than in the plexus choroides. In the third and fourth ventricles no appearance of dis-

ease was noticed. On raising the brain, the pia mater investing the anterior and inferior portions of the anterior lobes discovered marks of high inflammation; its small vessels being so generally injected with arterial blood as to give the membrane a uniform and bright vermilion colour. The pia mater, generally, had the appearance of vascular excitement. Effused blood extended to the base of the brain, about the decussation of the optic nerves, and was found at the inferior part of the cerebellum, where it rests upon the medulla oblongata, some of which progress it probably made after death. The substance of the brain was unusually firm and the convolutions particularly distinct.

It would seem that the apoplectic attack originated in the large extravasation of blood upon the brain, followed, with extreme violence and rapidity by meningeal inflammation and serous effusion.

It has been remarked that in those cases in which apoplexy comes on suddenly, the disease probably depends upon a rupture of a blood vessel in the head;* that in those cases in which water has been found in the brain, it may be doubted whether it be the cause or the effect of the apoplectic disease.† Dr Abercrombie doubts the existence of serous apoplexy, that is, that serous effusion exists as a primary disease in the brain, inducing apoplexy; and objects to the use of the term. M. Serres, after many experiments, thinks that pressure is never a cause of apoplexy.

The different opinions of those who have most laboriously investigated the subject, indicate its obscurity; and that, for its elucidation, *facts* yet remain to be supplied.

Keene, N. H. May 1823.

* Cooke,

† Stoll, Portal.

A Case of Abortion, attended with flooding, in which the placenta was delivered by an instrument. By JOHN RANDALL, M.D.

[Communicated for the New England Journal of Medicine and Surgery.]

MR. A., some time in October last, while sitting by the fire in her parlour, about 9 o'clock in the evening, was alarmed by a sudden discharge of water from the vagina. She was in the fifth month of pregnancy. She had once miscarried, and had been the mother of three children. Her husband called upon me at my house, and stated the occurrence directly after it hap-

pened; he inquired its meaning, and requested advice in the case. I informed him that his lady would miscarry, and that this accident was the proof, and would operate as the cause of it. Quietude and a cooling diet were recommended, and an anodyne pill sent to compose her for the night. On the evening of the seventh day from the bursting of the membranes, labour pains commenced, and the embryo was excluded in about three hours. The afterbirth however remained. After waiting about an hour in the hope that the uterus would contract and throw it off, a finger was extended along the cord, and the mouth of the uterus examined. The sides of the os tincæ were found firm and rigid, and closely contracted upon the cord. As there were no uncomfortable symptoms of any kind at this time, and as it would be very difficult, if not impossible, to deliver the afterbirth by art, it was thought best to leave it, as it was, in hopes that it would be removed by the efforts of the uterus in the course of twenty-four hours, as is generally the case. But in this hope we were disappointed: the patient passed a comfortable and quiet night, but the placenta was not excluded. An examination was made the next morning to see whether it was in the vagina, as the uterus might have contracted and forced it into that passage and left it there; it being free on one side from the powers of the uterus, and on the other prevented from escaping by the pressure of the external parts. It had not moved; the patient, her husband, and friends, were alarmed, that it should remain so long. They were however informed, that it was not an unusual case, and that it would probably come away in good time. She was directed an ounce of castor oil to open the bowels, and to take lemonade and oatmeal gruel as her drink and nourishment for the day; to keep quiet in a dark chamber, and to refuse the admission of company to her apartment. I had also hopes that when the oil operated, the uterus would sympathize with the action of the bowels. But in this expectation I was disappointed. The oil operated three or four times well, but the uterus remained quiet, and the placenta contained closely within it. The second day was passed without medicine, and without any endeavour to deliver the afterbirth. On the morning of the third day, the patient was examined. No alteration had taken place. An unsuccessful attempt was made to dilate the os uteri. The patient was left to pass the day, as she had the day before. On the fourth day she was found and left, as on the preceding. On the morning of the fifth, she was directed an injection of salt and water in hopes of forcing the uterus to action. The injection operated well four times, but no motions were communicated to the uterus. At about 10 o'clock in the evening

of this day, I was summoned in great haste by the husband of the lady, and informed that she was bleeding to death. I was with her in a few minutes, and found his declaration true. She was sitting on the chamber pot, which contained, as nearly as I could judge, about two quarts of blood. The hemorrhage continued unabated. She was pale, cold, and trembling, with an almost extinguished pulse. She was removed immediately to the bed, and placed in a recumbent posture. The hemorrhage at this time abated a little, but not to such a degree, as to give any well grounded confidence in the patient's safety. This was a serious case, and required a prompt and immediate remedy. But what measures should be employed was a very important question. One of two methods must be adopted; either to deliver the placenta by art, or else to trust it to the efforts of medicine. Each mode, however, presented difficulties. On the one hand if I gave the ergot, it might fail to produce uterine contractions, by which the placenta should be excluded, as I had known it fail in producing its specific effect upon the uterus in cases where the child was born, but the placenta remained; and if I trusted my patient to those astringent articles usually given in such cases, they might fail in arresting the bleeding; or if they succeeded in stopping the flooding at the time, still the burden would remain, the uterus would continue distended, and the bleeding liable to return at any moment. Should it return, I might be absent, as it was impossible for me to remain with the patient a great length of time; she might be cut off before I could get to her, or timely assistance given by any other one; for the loss of a small quantity of blood at this time must prove fatal, considering her miserable and exhausted condition. And if I decided to try the efficiency of medicines, still there was a difficulty. I had none with me. It would take a considerable time to procure them, and time was every thing to the patient. Furthermore, if I succeeded in stopping the hemorrhage even so that it should not return, still the afterbirth would remain; in a short time it would probably run into a state of putrefaction, an irritative fever would perhaps follow, which the feeble and exhausted condition of the lady would be unable to support. That such conditions of the patient and placenta may happen I am certain, as they have occurred to me once in practice.* On the other hand, an attempt to deliver the after-

* This occurred in the autumn of 1809. It was the case of a young servant woman. She miscarried at the end of the fifth month. She cut the cord close to the body. The placenta remained. Becoming unwell she left her place of service, and went into lodgings. I was called to see her about three weeks after the miscarriage. Her chamber was highly offensive from the odour of the putrid placenta,

birth might prove fruitless, as I had already made a partial trial to remove it, and had failed. But yet the opinion was supported by good analogy, that if I could succeed in delivering the placenta, the bleeding would cease, and the patient probably recover. Adding also this probability, that the great loss of blood and faint condition of the patient, by relaxing the system generally, must have produced this effect upon the neck of the uterus in particular. Considering all things therefore as well as I could in so hurried a state of mind, I determined to try to deliver, thinking I should thereby give the best chance to the lady for recovery. After placing the body in a favourable condition, the os tinæ was examined. I found it, as I had expected, a little more open than it was, when examined before. The neck of the uterus was also thinner and softer. But yet the opening was too small, and the neck of the uterus too rigid to admit the passage of two or three fingers at a time, by which the afterbirth might possibly be laid hold of, and hooked down. Irritation applied at the os uteri produced no effect. It occurred to me, while making these trials and examinations, that a small instrument, of a sufficient length and convenient curvature, might be employed to probable advantage in an operation which I intended, if possible, to perform, but as yet knew not how to accomplish. But I had no such instrument either with me or elsewhere. I was also unwilling to leave my patient in this miserable condition; but as I could do no good by tarrying with her, I determined to run to my house, which was fortunately at but a small distance, and see what I could find or form to aid me in my purpose. Before leaving it was thought best to employ a tampon of soft cloth, not having sponge at hand, as the best means of arresting the hemorrhage for the short time I should be absent. On the way to my house it was necessary to pass near to that of a physician, whom I thought best to consult, as it would give both confidence to myself and countenance to my practice, as well as additional safety to the patient. I will mention here, that a consultation had been advised and rejected. As there was no time for detail, I stated the case to the gentleman as briefly as possible, as well as the plan of an instrument, which I thought might be ser-

which was coming away in divided portions. She had a black tongue, full pulse, hot skin, with wandering pains, and occasional delirium. At this time a large swelling occurred on the left side of the sacrum. Thinking it critical, suppuration was encouraged. Upon opening it discharged about a quart of pus. At the same time, and on the same side, a large tumour took place upon the inside of the thigh, midway between the hip and knee. This subsided without matter. She was able to walk her room in two months, but was not well till the end of six. She is now a wife, and the mother of several children.

viceable in the case. He agreed that the placenta should be removed, if practicable, and that the proposed instrument would be convenient in its accomplishment. He also observed that he had some instruments made for another purpose, which perhaps might answer on this occasion. They were however too short and their curves too large. On arriving at my house and searching my drawers, the thing, that presented itself most convenient to my wishes, was a small male catheter, that had been straightened on a previous occasion to be used in a female case of highly inflamed and extended labia, where the common female catheter was too short to answer the purpose. About 3-4 of an inch of the perforated end of this was bent, in a common hand vice, to an angle of about 80 degrees, and with this rude instrument I returned to my patient. She had comparatively lost but little blood in my absence. The tampon had restrained it pretty well. At this time it was remarked to the lady, that farther trials must be made to relieve her, to which she objected, by declaring that she had rather die than submit to them. After considerable persuasion her fortitude got the better of her fears, and she yielded with perfect quietude to the operation. She was placed for the sake of a convenient position with her hips upon the edge of the bed, her head upon pillows, and her feet in chairs. A firm pressure was then made upon the abdomen for the treble purpose of forcing down the uterus as far as possible toward the operator, to fix it firmly in that position, and to aid its disposition to contraction. The left hand, with the thumb and fingers in a conical form, and with a rotatory motion, was introduced into the vagina. The forefinger was passed through the mouth of the uterus, and upon the right side of the placenta about one inch. The instrument was then introduced upon the finger, which served as a director for it, when its heel was forced down upon the perinæum, and the curved part shot over and beyond the placenta. It was then brought over upon the left side of the placenta and opposite the finger, that they might operate together as antagonist powers. This was done from a fear, that an attempt to deliver by the hook alone would prove abortive, by reason of the tenderness of the placenta, arising from its immaturity and its acquired tendency to decomposition. A draught was now made upon the after birth by the hook, and at the same time the finger and instrument pressed forcibly together. By the operation of these concurrent powers the body was firmly fixed, and brought down against the os uteri. But as yet it would not pass the ostium without doing violence to that part, owing to the great inequality between the size of the placenta and width of the

passage. I therefore concluded to hold it steadily and firmly in this position for a time, in hopes of fatiguing the neck of the uterus gradually dilating it without injury; or else by so strong a stimulus, as this exertion would occasion to the organ, to excite it to action, and thereby accomplish my object in one of these two ways, or by both conjoined. The os uteri evidently dilated by the pressure that was made upon it, and I think the placenta would have passed in a short time without any other means; but after about ten minutes the uterus began gradually to contract, and the placenta was delivered entire during the first pain. From this moment all hemorrhage ceased. The great chillness and exhaustion of the patient required her to be put into bed as soon as possible. Hot dry flannels were applied to the extremities. A violent spasmodic affection occurred at this time in the left side of the hypogastric region. This yielded in about half an hour to 90 drops of laudanum, friction, and hot flannels. In the course of an hour the patient was so comfortable, as to be left for the night. I visited her at nine o'clock in the morning, and found a strong reaction had taken place. She suffered considerable from headach, sick stomach, and thirst, as well as from that peculiar itching of the whole surface of the body, which is the effect of an over dose of laudanum; for this lady had never before taken more than 30 drops at one time. These symptoms principally subsided in the course of the day. Quietude, rest, and a cooling diet, aided by such aperient articles as would keep the bowels free and easy, for the most part, constituted the practice from this time. In about three weeks the patient had regained her usual health.

At the time of attending this case, I had no distinct idea of any work of practice for delivering the placenta by art in cases of abortion, otherwise than what was accomplished by the hand. I know that some kind of instruments, to be used in such cases, had been suggested in some of the books on midwifery; but as I had never needed them, I had never troubled myself to know what they were, nor the method of using them. I had never seen nor heard of any practice of the kind, employed in my own country. I was therefore not a little rejoiced in the month of November, upon receiving the Philadelphia Journal, containing the second part of that invaluable paper of Dr Dewees upon 'abortion and uterine hemorrhage,' to find that the Dr had not only recommended, but had frequently employed a similar contrivance, in such cases, with constant and perfect success. My own recommendation can do little to give currency to this or any other method of practice; but the honest feelings, sound judgment, and high reputation, of Dr Dewees, must give a sanc-

tion to whatever he may recommend in the obstetric art. It will however be seen by inspecting the plate, accompanying the paper alluded to, that the crotchet, there figured, has a more acute angle, than the one I employed. Having never before used an instrument of the kind, and on this occasion but a very imperfect one, I am not qualified to give a decided opinion in regard to its construction. Any instrument, answering the purpose for which it was made, is as perfect as necessary, and as the Doctor's has never failed him, a different one is not necessary in his hands; and I reflect with deference on the form of an instrument, that has been attended with constant success. But as the success of every instrument depends less upon its construction, than upon the abilities and address of him who employs it, so the adroitness of the Dr might give the appearance of perfection to an instrument, which might be varied to advantage for other hands. It seems to me, that a crotchet of a somewhat larger angle, than the one recommended by the Dr would be better suited to most operators, as it would cover a larger surface, and hence be less likely to tear through the substance to be removed. For the same reason I am inclined to think, that a flattening of the curvature at right angles to the handle would improve it. But this with me is merely conjecture, and I must leave the decision to future experience.

Whatever may be the opinion of physicians of the practice in this case, and whatever they may think of the eligibility of an instrument like the one described, in a similar instance, and for the opinions of the candid and judicious part of the profession I have great respect; I probably shall be always compelled to think, as I now do, that, without it, my patient would have died.

A case of Diseased Spleen ending fatally. By Dr JOHN GRIDLEY.

[Communicated for the New England Journal of Medicine and Surgery.]

MAY 1821, Mrs C. aged thirty-five, found herself inclined, to a feverish disposition, and sent, for my (then) partner Dr Whitmore, who administered an emetic, and prescribed some febrifuge powder. Notwithstanding the emetic, &c. she continued to have regular exacerbations twice a day, although very mild. I visited her, four or five days after she was attacked, and found her with rather an active pulse, some heat, and flush

of the cheek, no derangement of the stomach except from the powders, no pain in any part of the body, nor had she had any; concluded she would have a course of mild simple fever; left some febrifuge medicines, and mild laxatives, apprehending no danger whatever. She continued in this situation about fifty days, no new symptom arising of consequence, and indeed her condition at this time, bore a strong similitude to her first attack, except some prostration of strength. There had been no alteration of her treatment to this period, except the routine of antifebrile medicines. Disease continuing so protracted, and no symptom of a crisis appearing, we became alarmed, apprehending most certainly a local disturbance somewhere. Yet notwithstanding the most rigid examination, both by tact and by enquiry, frequently previous to this date, and particularly at this time, nothing could be discovered on which to found any thing more than mere faint conjecture. True, we were inclined to suspect from an aggregation of circumstances that her disease was hepatic, but nothing appeared to warrant that conclusion; nevertheless blisters had been occasionally applied to the right hypochondriac region.

In order to change or arrest, whatever might be the cause, she was put upon a course of calomel. In a few days the mercury took effect, and the calomel was stopped. This seemed to abate the febrile heat, and produced a universal moisture of the surface. There still remained an indescribable peculiarity in the stroke of the artery, (which had been observable from the first) not remitting, but affording a weak wiry sensation to the finger. This patient was not bled during her sickness, because in the first instance, or in that stage of the disease in which it was admissible, and at the time that any possible good could have resulted from such practice, we were deterred from doing it, from the circumstance of no particularly apparent necessity demanding it, and the proneness of her system to putrescent symptoms, (having had the typhus fever some years before,) and fevers at that season, in this vicinity, rather verging towards malignancy.

About the time the mercury took effect, this patient complained of a numb sensation of the left foot, which however passed off soon. In two days after, she was seized with a numbness and coldness of the right hand and arm, which soon extended to the whole right half of the body. This continued for eight days, when it was rendered less diffused, by blisters, stimulants and frictions, and limited more to the side and extremity. In five days from her being attacked with this partial hemiplegia of the right half, she was afflicted with a simi-

lar numbness of the left arm, (the arteries of which completely lost their sensible pulsations at the wrist,) and soon extended to the left leg and thigh. The circulation in the left leg was very languid, and by the most hopeful, and attentive examination, a pulsation in the left arm could not be discovered any lower than the axilla. About the time her numbness first ensued, three gentlemen of respectability in the profession were called in council; they differed in opinion as to the cause of the complaint, but concluded with myself that it was, a local one, originating from some viscus below the diaphragm. We all of course prescribed something for her assistance, but with evident uselessness. Blisters, stimulants, tonics, calomel and opium combined, and electricity, were tried in their turn as symptoms warranted. On the 15th of August ensuing she died. and in her death another instance of the insufficiency of our art was strikingly manifested.

Dissection.

Doctors Whitmore, Andrews and myself present; laid open the thorax and abdomen; a large quantity of adipose substance was discovered in the cellular membrane, notwithstanding she had been sick about three months, and during that time had taken very little sustenance. Found all the viscera of the abdomen and thorax natural, and in good order, except the *Spleen*, which on cutting into its convex surface discharged four or five ounces of a sano-purulent fluid. The spleen appeared perfectly healthy, except at this spot, perhaps of two inches diameter, which was pale coloured. The liver was very light coloured, but not altered in any other particular that was discernible. It weighed five pounds. We were not permitted a further examination, consequently the brain was untouched.

REMARKS.

This case is worthy of record, not only from its singularity and infrequency, but it may lead to some physiological truths concerning the functions of this viscus, the spleen; of which we have a very limited knowledge. Various opinions are offered by anatomists, and physiologists, respecting the subserviency of this organ to the general system, and of its own peculiar action; and very little is told us of the symptoms indicating its derangement. Rush, in his lectures upon physiology, calls the spleen 'a bason, furnished by nature to hold redundant blood, or to afford it a temporary asylum when the blood

vessels are unduly excited.' The opinions of Haller and Monro, serve to afford a foundation for such a conjecture; and the remarks of Duvernoy and those of Lieutaud seem to favour this conclusion. That it is glandular, is disputed by Haller and Monro and others, and from the circumstance of its having no excretory duct, which every other gland in the system as far as we know has, and from its structure, which most anatomists agree in saying is of a vascular and cellular tissue, without follicles or lacunae, there seems good ground for this doctrine. But why if not glandular is it subject to schirrosity? a disease peculiar to glandular parts, or will it be said that schirrosity is not peculiar to glandular parts, but is the same which we call chronic congestion in muscular parts? From all I have gathered on this subject, I am prepared to believe it is not a gland. Experiments made upon dogs go to prove, that it is not essential to the immediate existence of the animal; nor are the functions of digestion or of the hepatic organs, materially deranged by its extirpation. This shows at least its comparative uselessness with any other organ of the thorax or abdomen, except the ovaria. That it is an organ, subserving some *necessity* or *convenience* of the sanguiferous system, in part, either by affording the blood an occasional retreat, or by a peculiarly inherent unknown power, producing specific changes on that fluid. *convenient* for the promotion of digestion, we may reasonably presume, but any more is involved in obscurity.

This patient I should call of the choleric-sanguineous temperament, rather inclined to fulness, but not corpulent, short of stature and black hair. She enjoyed usual good health (as I am informed) before, and after her marriage until the years of 1809 and 1810, when she was seized soon after lying in with her second child, with a general inflammatory complaint called rheumatic, which held her in its effects about two years. She however recovered perfectly, except some little deformity of the finger joints; and remained in health until 1814, when she had a course of fever called typhus. After her recovery she again enjoyed health, until she was taken with the disease of which she died. These are the most important facts I have been able to accumulate concerning this woman. Now what was the remote cause of this disease of her spleen? Can it be attributed to any specific change wrought in that organ in consequence of her former diseases, or did it occur spontaneously and at what time? Was it preceded by an inflammatory action of the part ending in suppuration? Or was schirrosity the termination of the inflammatory action, (if any) ending in suppuration, and why were just such symptoms produced? It is no less strange than true, (and certainly discovers a striking

phenomenon) that a disease, so extensive at this was, and capable of producing so much derangement in the general system, could exist, without producing more prominent, local symptoms referable to the part affected. Anatomists tell us, the nerves of the spleen are very small; from whence it is capable of but little pain, and is rarely inflamed; that they arise from a particular plexus, composed of the posterior branches of the eighth pair at the stomach, and of certain branches from the large gangliform plexus, which produces the splenic trunk, of the intercostal nerves, from whence the branches surround the artery into the spleen. But, there is no other organ in the system, that does not exhibit during its inflammation, pointed local symptoms to a greater or less degree, of morbid action, not even the bones, and cartilages. That *any* disease of the spleen does not produce pain, I am not ready to assert; yet, in this case the patient never complained of any pain in its region. If this case may have a tendency to direct our attention more particularly to the spleen in combating similar symptoms, I shall feel happy in having preserved it.

Richmond, Oswego Co. N. Y.

19th April, 1823.

Case of Dropsy. By STEPHEN W. WILLIAMS, M.D.

[Communicated for the New England Journal of Medicine and Surgery.]

THE following case of Anasarca, with Ascites, deserves notice from the suddenness of its attack, its speedy disappearance without an operation, and from the habits of the patient. Few cases of ascites in the inebriate are ever cured without the operation of paracentesis and appropriate remedies; and even in the temperate these too often fail. The operation is merely palliative, and the unfortunate sufferer is doomed to linger out a wretched life, deploring the inefficacy of the healing art.

January 6th, 1823. I was called in consultation with Dr. Church of Sunderland to visit J. W. of that town, aged 48 or 50, a labourer, of the sanguineous temperament, rather addicted to libations to Bacchus, and what is rather unusual in persons of such habits, an immoderate eater. His general health had previously been good. For about a fortnight before he had been troubled with a dry irritating cough, attended with somewhat difficult respiration. He, however, did nothing for his complaint till yesterday. Upon examination, I found his pulse 100 in a minute, rather hard and full; countenance flushed; cough and

respiration as above described; skin dry and parched; abdomen very large and tense; and an evident fluctuation of water within the parietes; his legs extremely swoln and anasarcous, particularly the feet and ancles; a paucity of urine; a considerable thirst, though not so much as is usually the case in dropsy.

Doctor Church had seen him the day before, and very judiciously prescribed for him a cathartic of calomel, which was followed with jalap and chrystals of tartar; the infusion of digitalis with the addition of a little tartarized antimony, and a solution of the chrystals of tartar. His cathartic operated well. His pulse being hard and full, and his respiration laborious, I directed the abstraction of blood to the amount of 16 or 20 ounces, and an emetic of ipecac. and tart. ant. I likewise directed to

R. Calomel 2 grs.

Scillæ 1 gr. f. Pil. Capiat 1 ter. in die.

Continue them until slight ptyalism is induced. Continue the digitalis and antimony three times a day. Drink the solution of chrystals of tartar. If the breathing is not relieved by the bleeding, repeat the operation the next day. For his cough directed

R. Ipecac. et scillæ aa grs. 8.

Conserv. Ros. et opii aa grs. 10 M. f. Pil. 20 Cap. 1.
Noct. et mane.

This pill I have found invaluable in dry harassing coughs. Left the application of these remedies to the care of Dr Church.

Was called to him again on the 13th. Found many of his symptoms aggravated. His calomel and squill pill had induced colic with tormina and tenesmus. Dr Church had been obliged to administer a cathartic for his relief. He however continued regular in the use of the pills. His legs had increased very much in size. Pits could be made with the finger upon them an inch and a half deep, and the depressions remained a long while. The water had accumulated rapidly in the abdomen, and it was universally diffused. The fluctuation was as evident as in a bladder two-thirds full of water. He could only button the upper part of a large jacket across his breast. Pulse less frequent and softer; difficulty of breathing relieved. He had been bled little more than 16 ounces. Cough much the same as when I last saw him. Directed to continue the use of the calomel and scill. pill with the addition of $\frac{1}{2}$ gr. of opium. Keep his bowels open by means of injections.

He had made water much more frequently than when I last saw him, but he thinks not so much more in quantity. Omit the infusion of digitalis and antimony, and take the following pill:—

R. Scill. Siccat, et sap. cast aa 3ss.

Digitalis ʒj. cantharid. ʒss. Syr. Simp. q. s. M. F.
Pil. xx. Cap. I. ter in die.

Continue the cough pill. Roll the legs in flannel bandages, beginning at the toes and continuing to the groin. Apply a flannel roller to the abdomen. Let his constant and only drink be a solution of crystals of tartar $3\frac{3}{4}$ to a pint and a half of boiling water, which is as much as he wishes in 24 hours. I gave it as my opinion at this visit, that if the water in the abdomen accumulated as fast for three weeks to come as it had for a week past, that the operation of paracentesis must be performed at that period.

25th. Again visited our patient. Upon entering the room I was perfectly astonished at his appearance. His abdomen had subsided to a size smaller than natural. There was not the least vestige of water in the cavity. His jacket which would not meet by several inches when I saw him last, now lapped over more than an inch and a half. He told me he had it made just before he was taken sick, and it was then too tight for him. His pantaloons which he could not button by several inches on the 13th, were now so loose when buttoned, that he cannot keep them up; he wears no suspenders. The anasarca has completely left his legs, which are very small and shrivelled. He told me that in two or three days after I last saw him, he began to make water in astonishing large quantities, and often, which he still continues to do. His thirst has entirely left him. His skin is more moist and natural. His system is completely saturated with mercury, and his mouth sufficiently sore. He is walking about the house, and feels happy. The only disagreeable symptom which remains is his cough, which is by no means so urgent as when I saw him last. Directed to omit the calomel and scill. pill, and to substitute a diuretic tonic, as in the following formula:—

R. Cort. peruv. 32. Bacc. junip. 3 ss.

Gentian. 32 scillæ 32 Helleb. Nig 3 1.

Alcohol Dilut. lbi. cap. cochlear. mag. ter in die in aq. pura.

31st. Saw him again this day. He is rapidly convalescing. His appetite good, and his cough abating. Omit all medicines, but his diuretic tonic and cough pill.

March 8th. Convalescent.

REMARKS.

Much was done towards the cure of this patient by his rigid adherence to the course we prescribed for him. Every medicine was taken precisely at the hour directed. The change was great from full living, and intemperate drinking, to abstemious diet and a total abstinence from spiritous liquors.

To which of the above remedies may we impute the cure in this case? They have all separately, in the hands of judicious practitioners, been instrumental in curing dropsies. The ancients, from time immemorial, were in the habit of giving hydragogue purgatives in the various species of dropsies with success in many instances. The celebrated Donald Monro, who published his *Essay on dropsy* in the year 1756, and the English Hippocrates, the immortal Sydenham, were lavish in their praises of this form of cathartics. The latter considers them almost as specifics. The treatise of Monro may be read with great advantage at the present day. Emetics too have had their share of praise in this complaint. Monro says, "Emetics increase the oscillation of the solids as well as the motion of the fluids contained in them. By which means, and the forcible compression of the bowels one against the other, the viscid parts of the liquids are broken down and the excretion of watery slimy liquors from the mouth, throat and stomach, are augmented."

The emetic and cathartic were given in this instance merely to prepare the system for those remedies upon which we placed the most reliance. Bleeding too has been much extolled in the cure of dropsies, particularly by the celebrated Dr Rush; and numerous well attested cases of its efficacy are upon record. Several very important cases, cured almost entirely by venesection, are mentioned in the first and second volumes of the *Philadelphia Medical Museum*. Bleeding was resorted to in this case to subdue the inflammatory affection of the chest, and one operation was deemed sufficient.

On the use of bandages I have ever found them of service in oedematous affections of the extremities. Monro says: "They are extremely proper and beneficial in assisting the tone of the parts, and for preventing the influx of fluids into the cellular substance, and expelling water from it." The late Cornelius C. De Puy, M. D. formerly of New York, in a treatise on the uniform action of the absorbents, published in the first volume of the *Transactions of the Physico-Medical Society of New York*, speaking of the utility of pressure in dropsy, says:—"It is supposed to expedite absorption by some directly accelerating effect; and this opinion is rendered plausible by the advantage which is derived in dropsy from bandages and tight lacing. But the real effect of these applications probably consist in restraining effusions, by resisting the distention of the cells and impeding the actions of the exhalants. Again, a certain degree of pressure may, by supporting the debilitated blood-vessels, relieve the morbid action of the exhalants, and induce a more healthy and vigorous tone in those vessels; on this the benefit of rollers and adhesive straps appears to depend."

So much has been said upon the efficacy of digitalis, squills, calomel, &c. by all modern writers upon dropsy, and so various has been the success of physicians in the use of them, that I shall not long detain the reader with any speculations in regard to their *modus operandi*. Their specific qualities are well known to the profession. One or other of them, I believe, is almost universally made use of in such cases. Having never succeeded in dropsy with either of them separately, I determined in this case to make a thorough trial of them combined; and as it is generally conceded by our best authorities, that the dropsy of intemperance proceeds from an affection of the *liver*, it was determined to push the calomel to as great an extent as the system would bear, and induce ptyalism, and at the same time to give the digitalis and squills in as great quantities as could be borne without enfeebling the constitution. The case was almost hopeless, and active remedies must be resorted to. All writers agree, that dropsy from the use of ardent spirits is rarely, if ever, cured. Beddoes, as quoted by Mr Reed in the 12th volume of the London Medical and Physical Journal, says:—"It is often found impossible even to *relieve* the dropsy of intemperance. The dropsical can have no reasonable expectation of being able to enjoy the pleasures of existence in full measure; and from that dreadful complaint, dropsy of the chest or lungs, the foxglove in particular, and sometimes other medicines, will often procure a respite, and the patient will seem to himself quite renovated; but the gleam is generally short; the tide flows back; the distress recommences. The same means indeed commonly procure another interval, but it is less perfect and shorter. At last it comes to be, as on board a ship, on springing a leak, that it cannot be stopped; no sooner do the pumps cease to work, than the water rises in the hold. If medicine discharges the water one day, it is collected in greater quantities the next. The absorbents now begin to be insensible to the spur. The horrors of slow suffocation commence, and a succession of spectacles are presented, at sight of which the reflecting bystanders may well regret being endowed with animation, and may envy the very stones under their feet for their insensibility." Dr Trotter says, "that dropsy is very frequently the harbinger of death with the inebriate."

By combining remedies we are frequently able to effect a cure, which could not be effected by administering them in a simple state. The event in this case answered our most sanguine expectations. The digitalis in this case was carried far enough to lessen the excitement in the arterial system, but not to produce any irregularities in the pulse; and in combination with the other remedies, it acted most powerfully as a diuretic. This drug usually

produces its greatest diuretic effects either in substance or infusion; hence either of these forms appears to be more proper in dropsy than the tincture. Mr Bedingfield, in his *Compendium of Medical Practice*, appears to be *excessively cautious* in the use of it. He says:—"That no remedy has as yet been discovered for an over dose of it."

Since writing the above I have perused Blackall on dropsies. His division of these complaints into dropsies, in which the urine is coagulable by heat, and those in which it is not coagulable, appears to be judicious. His cases are generally interesting; but his book appears to me to be more valuable for a detail of cases than for the speculations and opinions deduced from them. I can by no means agree with him, that all the cases of œdema of the extremities, which he has related, are cases of dropsy merely, because the urine coagulates by heat and nitric acid. Many of his cases were cured without the application of a single remedy, but merely the removal of the exciting cause. I do not censure him for not suggesting or naming a new remedy for this affection. If the old ones are the most efficacious, by all means continue them. But I do protest against inundating the world with books, where nothing more valuable is communicated than what we knew before. Blackall, like Bedingfield, is cautious in the use of digitalis. His remedy for an overdose is a blister to the pit of the stomach, and forty drops of laudanum in brandy.

As works of reference are always desirable to junior practitioners, in addition to our elementary medical works, I will mention some of the most important cases of dropsy, which occur to my recollection from reading. In the 4th and 5th volumes of the *London Medical and Physical Journals*, numerous important cases cured by tonics. In the 5th and 6th, several cases cured by digitalis. The cases cured by venesection, in the *Museum*, above alluded to. A case cured by *pyrola umbellata*, in the *Transactions of the Medico-Chirurgical Society of London*; Blackall's cases; Munro on the dropsy, where many valuable cases are related; and an extraordinary case cured by fear, detailed by Dr Ramsay of South Carolina, published in the 2d volume of the *Museum*. This case is so interesting and curious, that I presume I shall be pardoned for transcribing it.

"In the year 1799, while General Moultrie, at the head of the American army, was retreating before the British under General Prescott, who then invaded this state, a German named William Spoon, whom I knew well, one of Moultrie's militia, during a small halt which he made at Tulifinny, was placed on sentry: the enemy coming on, Moultrie resumed his retreat, and

in the confusion, the officer whose duty it was, neglected to call Spoon off from his post; Spoon remained so much longer than was customary, that he at last determined to return from camp with a friend of his, named Otts, also a German, whom too I knew, and who was a very honest man, much to be depended on: Otts had also been on sentry, and he and Spoon accidentally encountered each other, returning to camp much exasperated at the hardship of having been made to do double duty. To their astonishment, instead of finding their friends, they came suddenly upon the British, who then occupied the very ground from which Moultrie had just retreated. Being seen by the enemy, Spoon and his comrade with difficulty effected their escape into the neighbouring swamp, where they concealed themselves. Spoon had been for many months very dropsical, and it was expected that it would in the end cause his death. They had not long hid themselves, when Spoon was seized with an inclination to make water; he was afraid to rise up, lest he should be discovered by the enemy, who they believed was in search of them; he then unbuttoned as he lay, and to use his own words, in a little time he raised 'a small creek, for he pissed as broad as a sword.' The swelling of his belly instantly fell; he returned home, and was my neighbour in St. Bartholomew's Parish for years after, enjoying as much health as most of us, until a pleurisy put an end to him about the year 1798. I had the account from Spoon's own mouth, and it was confirmed to me by his comrade Otts."

Effects of an overdose of Tincture of Stramonium.

AUGUST 5th, 1821. Was called to T. B. an Irishman aged 27. He had been labouring violently amongst hay under the influence of a hot sun. His habits were intemperate, on coming to the house he went directly to the closet for a draught of New England rum. The bottle in which he usually kept it had accidentally been removed, and another one similar to it, containing a strong tincture of stramonium, (thorn apple or Jamestown weed,) was in its place. It contained half a gill or a large wine glass full. He seized it, and swallowed it at a draught. He was immediately attacked with vertigo, dilatation of the pupils of the eyes, with double and confused vision, nausea, but no vomiting, and drowsiness succeeded by coma.

I did not see him until two hours after he drank the tincture. In addition to the above symptoms, he was violently convul-

sed, every muscle in his body appeared to be in violent commotion. He was continually beating his breast with his hands, like a catholic doing penance. His jaws were set as in tetanus; he moaned continually; his breathing was stertorous, and occasionally there was rattling in his throat. His extremities were cold, his pulse nearly obliterated, he had cold clammy sweats, and his countenance was hippocratic.

Believing him to be in *articulo mortis*, I hesitated for a moment whether to do any thing for him or not, I however, resorted to friction over the whole surface of his body; applied bladders of warm water to his hands and feet, and endeavoured to restore the circulation. As strong vinegar or lemons were not at hand, I prepared a powerful solution of tartarized antimony, and with great difficulty pryed open his jaws, and endeavoured to get a little of it into his stomach, by half a teaspoonful at a time. After unwearied attempts he at length swallowed a little of it, but it almost caused strangulation. I however, persevered in the administration of it for two hours, and got down, I should judge 12 grains, in as little water as would dissolve it. Deglutition now became almost or quite impossible, and I desisted from any farther attempts at forcing it down. I supposed that the die was cast. In about half an hour after he last swallowed he began to vomit. He threw up considerable matter having the peculiar smell of stramonium. He was then able to swallow without much difficulty. Vomiting was encouraged by copious draughts of warm water. His stomach was completely evacuated. His emetic *turned down* and operated powerfully as physic. He remained senseless till morning when he awoke totally unconscious that any thing had happened to him. He still saw indistinctly, and the pupils of his eyes remained dilated, but they gradually returned to their natural state. He recovered in the course of a few days. And he has recovered too from a loathsome habit, for since he took the tincture, he has never been able, nor has he the least inclination to taste a drop of ardent spirit. Even the smell of it is most disgusting to him.

Before this he was in the habit of drinking nearly a quart of whiskey, or New England rum in a day. He says, '*An faith I am not sorry for the poisoning.*'

The tincture was prepared for an asthmatic patient, who was directed to begin with, and not to exceed six drops at a dose. The latter quantity he says has some times produced disagreeable sensations.

May we not learn from the above case '*nil desperandum*' in any emergency.

Deerfield, May 26th, 1823.

Report of a Committee of the Centre District of the Medical Society of New-Hampshire, on some recent cases of Colica Pictonum, in Concord, N. H.

[Communicated for the New England Journal of Medicine and Surgery.]

THE following report, relative to a number of recent cases of *colica pictonum* in two families in Concord N. H. has been prepared by a committee appointed for the purpose, by the Centre District of the New-Hampshire Medical Society. The committee consisted of T. Chadbourne, M. D. J. Rogers, M. D. Dr M. Long, E. Learned, M. D. and J. Wilson, M. B. As there have been several learned dissertations published lately, relative to this kind of colic, the committee do not deem it expedient at this time to enter largely upon the subject, but merely to give a concise and plain statement of facts, as they occurred in the cases alluded to above, to assist in some degree, the inexperienced practitioner, in arresting the progress of this truly formidable disease before it is too late to apply any effectual remedies.

The first cases occurred in Dr L.'s family consisting of four adults and three small children, all of whom were more or less affected. The disease was occasioned by taking white lead in sugar. They commenced the use of the sugar that contained lead 24th October last, and continued to use it every day in various articles of diet, such as coffee, tea, pastries, &c. about five weeks before any very deleterious effects were felt. About the first of December, all the members of the family began to be afflicted with frequent nausea and vomiting. It could be recollected, however, that several days previous, the following symptoms were apparent; a peculiar paleness, the skin and adnata of the eyes being tinged with bile, irregular appetite, costiveness, slight pains across the stomach and lower part of the abdomen, wandering pains in other parts of the body, occasionally slight feverishness, and general languor. At this time vomiting was common after taking food, or drinks, of fermented liquors of any kind. What was thrown up from the stomach was of a whitish or porraceous matter. Vomiting seemed to afford partial relief for a short time only, in the early stages of

the disease. But in a more advanced stage, it seemed to aggravate every other distressing symptom.

When this family was taken with vomiting which took place in all nearly at the same time, strong suspicions began to be entertained that something poisonous had been taken with food; therefore nearly all the articles of diet then in use were set aside and others substituted. The family at this time were able to keep about house. About eighteen days afterwards the disease became more obstinate and violent. There was, however, during this time, a perceptible declension of the health with an increase of the distressing symptoms, which now began to wear an alarming aspect. The disease at this time assumed all the characteristics of colica pictonum without disguise, and suggested to Dr L. the true cause, which was soon detected in the sugar. The quantity of lead taken is unknown, but from the specimen of sugar examined it was judged to be two or three ounces. About the 20th of December, a considerable increase in the violence of the general symptoms took place. The countenances were fallen, the skin more yellow, and then ensued œdematous swellings of the extremities, very obstinate costiveness, a sensation of the stomach and bowels being strongly drawn upwards and backwards, soreness of the muscles generally, much pain in the large joints, particularly the knees, numbness of the extremities, sometimes extending through the whole system, lancinating pains across the stomach and lower part of the abdomen, a frequent but ineffectual desire to evacuate the contents of the bowels, excessive irritability of the stomach, extreme nausea and vomiting, spasms of particular muscles, and in two cases, of the whole body with delirium. These constitute the principal symptoms of this formidable disease at its more advanced stages. It is worthy of remark that after an alleviation of most of the distressing symptoms, by the use of remedies, and even an apparent cure effected, the disease with all its violence and terror would often return in a day or two, on the discontinuance of these remedies. This propensity to the disease continued in some, several weeks. These cases all terminated favourably after protracted illnesses of from six to twelve weeks, except Mrs L. she died 14th January. About three weeks previous to her death convulsions commenced, and the tongue and some other parts of the body, became partially palsied. Subsequently and during a few of her last days, epileptic fits supervened, which by their violence and frequency soon rendered her apparently quite insensible to what was passing around her.

On examining the body we found the skin of a deep yellow,

portions of the colon somewhat contracted, gall bladder unusually large and filled with bile, pancreas light blue and very hard, vessels of the brain turgid, slight effusion between the tunica arachnoides and pia mater, and about two ounces of fluid contained in the cerebellum.

These cases were chiefly under the care of Dr L. and the mode of treatment nearly the same in all. The greatest difficulty to encounter was the obstinate costiveness. To obviate this, recourse was had to the free use of calomel in some convenient liquid, best calculated to retain at least a portion in the stomach, which was so irritable, that every thing received into it would excite immediate vomiting; but calomel exhibited in this way owing to its gravity could not all be emitted. These doses were soon followed by injections of infusion of senega with sulphate of soda, and the warm bath immediately after; which seldom failed of procuring the desired evacuations. The temperature of the bath was often raised as high as 112° , and the patient remained immersed in it from 10 to 30 minutes. The bath was also used on account of spasms, and continued in almost every instance till they were relieved. These indications of cure being effected, the next object was to prevent returns of the complaint by the free use of opium, baths, and cathartics or laxative pills. In most cases the common soap pill answered the purpose, but when more active medicines were necessary a pill of cal. gr. v. emet. tart grss. with soap given two or three times a day, was found to be very easy and efficacious in its operation. The form of Pemberton's pill would do very well, substituting tartarized antimony for opium. Where the vomiting was so violent and incessant that opium could not be retained in the stomach; it was used freely over the abdomen with very good effect. In one case where tetanus was very strongly indicated, the spasms were permanently relieved by the external use of opium with warm bathing. In this case the bath was used as often as the spasms returned, and continued till the muscles were quite relaxed which would take place in the then exhausted state of the patient in the course of from five to fifteen minutes. Some days there was occasion to repeat the bath three or four times. Other medicines were used such as mucilages, oleaginous preparations, epispastics, anti-spasmodics, &c. which seemed by their effects to be rather of a secondary order of remedies.

Mr W.'s family was poisoned by eating applesauce which had been kept in brown earthen milk pans, till it had very considerably corroded the glazing of the ware. The sauce being hot when it was turned into the pans, of course would facilitate

the combination of the acid of the sauce with the oxide of lead contained in the glazing. The family consisted of five adults; three of whom ate nearly all the sauce contained in two pans, and were the only persons affected, and they appeared to be affected in different degrees according to the quantity of sauce eaten by each. They were in the daily use of this sauce about three months. The one who was said to have eaten a 'double quantity' presented one of the severest cases spoken of above. This patient, (a young woman) had strong indications of tetanus for several days, being grievously afflicted with spasms throughout the whole system. There was a similarity in appearances in all the above cases.

We were informed by an intelligent manufacturer of this kind of ware, that they prepare their glazing by mixing fourteen pounds of gray oxide of lead with nine pounds of 'loam;' then stirred into a sizing of rye meal and water; is the quantity used for 'ten dozens of milk pans.' Therefore each pan contains nearly two ounces of lead. On examining the pans from which the sauce had been taken it was found that about one third part of the glazing of two pans was decomposed; the lead having combined with the acid of the sauce, leaving a part of the composition resembling 'loam' adhering to the ware.

MOSES LONG for the Committee.

Concord, N.H., March 18th, 1823.

A Case of Phlegmatia Dolens Puerperarum. By EDMUND PORTER, M.D. Licentiate of the Connecticut Medical Society, &c.

[Communicated for the New England Journal of Medicine and Surgery.]

PLACED as country physicians are, far from the seats of science, it cannot be expected that their libraries or means of reference can bear any comparison with those of the faculty in our principal towns and cities; nevertheless, they frequently meet with cases, which are important and interesting in several points to the practitioner. Impressed with these facts, I am induced to relate to you a case of phlegmatia dolens puerperarum, and treatment; should you deem it deserving of publicity, you will confer a favour by inserting it in your valuable Journal.

Phlegmatia dolens puerperarum, although it may have existed as long as most diseases peculiar to humanity, it has not received that notice in our medical records, which, in a practical view,

it unquestionably deserves from those who have had an opportunity of witnessing this rare complaint.

Mr White, of England, was the first who published an 'Inquiry into its nature, causes and cure,' in the year 1784. After him, Mr. Trye of Gloucester, and Doctors Ferriar and Hull of Manchester, have severally written on phlegmatia dolens puerperarum. According to the account given by the above gentlemen, it is a disease of rare occurrence. For of 9897 women delivered in the Westminster General Dispensary, and the Manchester Lying-in Hospital, *nine only* were seized with it. And Dr Robert Thomas, in his Practice of Physic, informs us, that during forty years practice in Great Britain and the West Indies, *only two* cases have fallen under his care.

Symptoms.

The case which I now attempt to describe occurred in the person of Mary Russell, aged eighteen years. I paid her my first visit about the 17th of January 1822. I then learned that three weeks before that period, she had been delivered of twins—still born—that her accouchment was performed hap-hazard by the neighbouring women (who by the by are not the most intelligent in the world) that she had suffered much pain during gestation and parturition, for the former of which she had been repeatedly bled. On closer examination I found the right leg swollen from the toes to the labia pudendi, involving the hypogastric region, loins, nates, and groin. The tumefaction was of a pale white colour, painful when touched and very elastic. Her mother informed me, that "she had been badly handled and had taken cold," preventing the lochial discharge. Costiveness was a predominant symptom, and great prostration of strength; a pale bloodless visage; excessive pain in the parts affected, particularly in the right labium; difficulty of micturition; pyrexia; rigors; and a quick and weak pulse fully indicated the nature of the disease and the sufferings of my patient.

Treatment.

Writers on this disease have not settled on any specific mode of treatment; much therefore depends on the discretion of the practitioner, as the 'milk leg' and several other puerperal diseases are confounded with, or taken for phlegmatia dolens puerperarum.

The plan of treatment which I pursued in this complaint answered its intention, which consisted of cathartics of jalap; cre-

mor tartar; senna; sulphate soda, and ol. ricini, to which may be added enemata, one of which, or in combination, was ordered every thirty-six or forty-eight hours, to relieve the bowels and prevent costiveness. Epispastics were applied to the thigh and leg without any benefit. Pulv. ipecac. compos. in which was included a larger quantity of opium than directed in the books on materia medica, in the interum between the operations of the cathartics, procured temporary relief. A decoction of uva ursi procured, when required, sufficient micturition. A solution of the muriate of ammonia in acetic acid, was applied as an embrocation, and in cataplasms of lini, elm, &c. with apparent benefit. *Venesection* and *cupping* were, however, the remedies from which I received the greatest benefit in this case, though bloodletting was not carried to a great extent, yet cupping was extensively and repeatedly resorted to with such evident success, that in a few days the swelling of the parts already described lost their former characteristics, became œdematous, and was speedily reduced to its original size by a flannel roller. Bark, bitter's, chalybeate's, wine and generous diet were now prescribed which eventually restored her strength, health, and activity.

From the slight acquaintance which I have had with the genuine *phlegmatia dolens puerperarum*, the information derived from books, and the opinions of several of my medical friends, particularly Dr James Lakey of New York, who witnessed the above described case, I am led to believe it to be a highly inflammatory intumescence of one or both of the lower extremities, differing from the "milk leg" or elephantiasis, (which I have repeatedly witnessed during my practice in the West Indies and the United States.) marked by specific symptoms, such as the astonishing enlargement of the labia pudendi; a uniform swelling of one of the lower extremities, sometimes from long continuance or mal-practice affecting the other; whiter than natural; excessively tense; unusual heat; and exquisitely tender when touched. These are the characteristics which distinguish it from swellings in general, and particularly from 'the milk leg' and elephantiasis, though each are more or less glandular affections.

Now whether *phlegmatia dolens* is owing to increased irritability, over distended blood vessels, diminution of the lochia, absorption or recession of milk, obstruction, detention, or accumulation of lymph, the pressure of the fœtus on the internal iliacs, veins and nerves, or whether new sympathies are produced in the system by agitation and anxiety during gestation and delivery, I leave to more skilful theorists to determine.

Before I conclude, permit me to impress the mind of the reader with the importance of the usually prescribed antiphlogistic remedies, viz. venesection, cupping, diluents, acids, cathartics, fomentations, and spare regimen, as the most safe, certain, and judicious plan to be pursued in the first stage of this disease, which may emphatically be denominated a *white inflammation*.

Frenchtown, Hunterdon Co. N. J.

March 12th, 1823.

[Communicated for the New England Journal of Medicine and Surgery.]

GENTLEMEN,

IF you think the following case worth publishing, it is at your service.

Yours, &c.

HENRY S. WATERHOUSE.

Malone, N. Y. May 24th, 1823.

Benjamin Meriam, æt. 56, an inhabitant of this place, lately died of phthisis pulmonalis of long standing, attended with some symptoms of no ordinary appearance. Mr M. possessed originally a well balanced constitution, and until July of 1778 had enjoyed excellent health. At that time he underwent, whilst in Montreal, a severe fit of sickness, called by the physician who attended him, nervous fever. He was many days delirious; convalescence was very tardy; and he ever after remained feeble and in bad health. He was troubled with pain in the right side and costiveness, together with a dry hacking cough, and dyspnœa increased by exercise. Thus far I have learned from his family connections.

It is about twenty years since I became acquainted with Mr Meriam. His countenance was pale and sallow; voice feeble; much troubled with costiveness, and with symptoms in those days denominated jaundice. Any considerable degree of bodily exercise invariably augmented the pain of the side and laborious breathing, and sudden vicissitudes of weather were sure to be followed by an increase of cough. He employed himself either in very light bodily exercise, or in journeying about the country. Occasionally, perhaps once in eighteen months or two years, he has had a run of what appeared to be gastric fever, attended at its commencement with a greater or less degree of synocha, always with an increase of side ach and cough. This pain of the right side was shifting, sometimes felt with most severity under the anterior extremity of the 4th, 5th, and sixth ribs, often in the region of the liver; but every part of the right side of the chest

and right side of the abdomen was at times the seat of pain. In the summer of last year (1822) he was twice for a few days confined with fever of the character mentioned above. There was not much difficulty in subduing the ardent or synochal symptoms, but on the whole my patient was evidently, though slowly, declining.

Early in the month of March last, Mr M. became confined to his room. He was feeble, though his pulse were hard and frequent. Pain, though not very severe, shifting over the right side of the body; obstinately costive; paucity, and high colour of urine; tongue thickly loaded with mucus, sometimes white, at other times tinged with yellow; liver evidently enlarged; the right side of the chest had become flattened, probably from disuse of the intercostal muscles of that side. His countenance was wan and had an expression of great anxiety. Voice very feeble. His respiration soon became hurried and laborious by talking, as from walking only a few steps. The daytime was passed in tolerable quietness, but the nights were dreadful. Constant sensation of tickling in the trachea and incessant coughing till an early hour in the morning, after which he generally had some sleep, disturbed however and unrefreshing, and occasionally attended with profuse sweating.

A few bleedings, together with antimonial medicines, reduced the frequency and hardness of his pulse, and repeated blisters had considerable effect in diminishing the severity and constancy of the erratic pains of the side. His greatest trouble seemed to arise from the laborious, though fruitless efforts made during the nightly paroxysms of disease, by hawking and coughing to dislodge mucus (or what seemed to him to be mucus) from the trachea. For hours in succession would he fatigue himself in this vain endeavour, until his small remains of strength were quite exhausted.

No internal medicines nor external applications had any effect in lessening this distressing symptom. It was easily ascertained, that the uvula had no agency in producing this affection of the throat. His pulse became natural and the feel of his skin did not deviate much from health.

About seven weeks since, he mentioned having a small swelling immediately below the right nipple. On examination I found it to be an abscess by congestion, formed by the propulsion of fluid from within the thorax, plainly to be felt whenever he coughed. There were 'good and sufficient reasons' which induced me for several days to delay opening this abscess. I could not expect to benefit my patient by treating it after Abernethy's method of managing lumbar abscess. Nor could I appre-

hend any thing less than a thorough formed and rapid hectic, which so constantly supervenes on opening abscesses of this kind. In about ten days, however, it had increased so much in bulk and the certainty of its bursting through the skin was so apparent that I let out the contents by puncturing with a tumour lancet. There discharged through this opening in the course of a few hours, not less than three pints of thin, light coloured, inodorous pus. But the patient did not experience any alleviation of his troublesome symptoms. The sensation of mucus in the throat and laborious exertions to dislodge it, yet constantly harassed and fatigued him. His strength daily declined, notwithstanding a free use of cinchona, wine, nourishing diet, and as an anodyne, opium in large quantities.

Whenever he coughed, not only matter but air was freely expelled, and when the dressings were removed, air was as freely admitted through this opening.

After one week the fluid from the side became very offensive, and continued to increase if possible in offensiveness till his final exit. Notwithstanding the usual precautions as to cleanliness, ventilation, and fumigation, the fetor was so intolerable that very few people could be induced to go a second time into his room.

He had complained of lancinating and spasmodic pains through the affected side, experienced much difficulty in swallowing and said that his throat was growing up. His tongue was clean but smooth and red. Pertinaciously costive, voided but small quantities of urine and that at long intervals. Had slight delirium and much inclination to coma. All this time his pulse and his skin felt like the pulse and skin of a person ailing of mere debility. The fetid discharge from his side continued with few interruptions copious, and had become of a brownish colour. For eight days before his decease nothing passed his bowels, and for the last three days he voided no urine.

He died on the 16th inst.

On the following day in presence of several medical gentlemen I opened and examined the body. The entire pleura costalis of the right chest excepting such portions of it as adhere to the diaphragm and line the cartilages of the ribs, had become converted into a firm and hard bony substance averaging in thickness from one twelfth to one tenth of an inch. I enclose you a fair specimen of this bony casement.

It was broken into many distinct masses adhering at their posterior ends with some degree of tenacity to the ribs.

This adhesion was most remarkable in the upper part of the thorax. The divisions or fissures for the greater part ran in

a direction parallel to, and directly opposite the intercostal spaces, lining or covering in totally distinct and separate masses, one, two, and at most three ribs. The right lobe of the lungs was more than half wasted, the remnant was dark coloured, ulcerated and over some parts of the surface sphacelated. There was half a pint of dark brown intolerably fetid fluid remaining in the diseased thorax.

The anterior part of the fourth and fifth ribs was carious, and that portion of the intercostal muscles which should have been found between the carious section of the ribs had entirely disappeared.

Excepting an unusual degree of softness or flabbiness the left lung had nothing indicative of disease in its appearance. The intestines were greatly loaded though not distended, with hardened feces. The bladder contained about half a pint of urine. The liver was pale, somewhat enlarged and flabby and the gall bladder was full almost to overflowing.

I have never before seen an ossified pleura, nor had I any knowledge of such a case except from the short notice in Baillie's *Morbid Anatomy*. My ignorance of these matters is very probably owing to a very simple cause. Want of more extensive acquaintance with morbid anatomy.

REVIEW.

ARTICLE VII.

A Letter to Charles Henry Parry, M.D. F.R.S. &c. &c. on the influence of artificial eruptions, in certain diseases incidental to the human body, with an inquiry respecting the probable advantages to be derived from further experiments. By EDWARD JENNER, Esq M.D. L.L.D. F.R.S. M. N. T. F. &c. &c. &c. And Physician Extraordinary to the King. 4to pp. 67. London: 1822.

THIS is one of the last works of the late Dr Jenner. It consists of cases and remarks. The author had frequently talked with Dr P. on the influence which pustular eruptions artificially excited might have in many diseases. The letter contains the results of numerous experiments which these conversations led the writer to make.

It is our purpose to analyze this letter, and to offer the reader an account of the practice it contains, and its effects.

Case I. This is a case of mania. The patient first had hypochondriasis which followed disappointments, and was accompanied with very torpid bowels. Large doses of cathartic medicines were given without any perceptible effect. He was freely bled, and nauseating doses of emetic tartar given without benefit. Dr Jenner was consulted, and recommended stimulating clysters. 'I was again consulted,' says Dr J. 'and in this dilemma proposed to try the result of an application which would produce specific eruptions on the skin. A dram of tartar emetic was involved in an ounce of simple cerate, and a portion of it was rubbed on the inside of the arms, night and morning, from the elbow joints to the wrist. Papulæ of some magnitude were produced, and a serous fluid began to be visible on their apices about the third day, when amendment became perceptible, and advanced so rapidly that the transition from derangement to health was almost inconceivable. Twelve months have now elapsed, and he has had no symptoms of a return of the complaint.'—p. 5.

Case II. Aged 75. Had been a free liver. Had been attacked formerly with carbuncle between the shoulders. Some time since was seized with colera morbus of a severe form. He recovered soon, and the mind became disordered. This disorder increased. The usual means were employed without benefit. The ointment of tartar emetic was now applied to the nape of the neck, and between the scapulæ, avoiding the seat of the carbuncle. Soon after, eruptions were produced, recovery began, and was rapidly completed.

Case III. Aged 17. This was considered a hopeless case of phthisis pulmonalis. The hectic state of the patient is described. 'Superadded to this it may be necessary to mention for your consideration, that in the course of the preceding fortnight there was a perceptible enlargement about the centre of the left side of the thorax, giving the appearance of a little protrusion of two or three of the ribs, but which on examination, afforded no correct information.'

'To engage his mind, and not in the expectation of his ultimate recovery, the ointment was rubbed on the protuberant part until pustules were produced, which was affected within two or three days.' Good effects were manifested in the course of a fortnight. In six weeks from this time he was well, and returned to his business, as a stone-cutter.

Case IV. Aged 54. Spasmodic asthma. The ointment of emetic tartar was applied to the nape of the neck. Since its use the attacks have been more slight, and the intervals between them lengthened.

Case V. Aged 47. This is a case of 'raving madness.' The mental disease was produced by a violent and most painful inflammation of the right eye. The ordinary means were employed with perseverance and boldness, but without benefit. 'Seeing the impression which tartar emetic had made on affections, connected with a disordered state of the brain and nerves, I did not hesitate to direct the application of the ointment, and it was employed to the left arm.

Pimples followed in twenty-four hours, and as soon as they became acuminate, and contained a little limpid fluid, the patient found ease; the pain continued to abate, and at the end of three days it was quite gone. He continues well.' p. 9. This man was a hard drinker.

Case VI. Aged 12. This is a case of chronic hepatitis. The state of the patient was almost hopeless. 'At this period of the progress of the complaint the ointment was applied with the usual cutaneous effect; after which he recovered with astonishing rapidity, and no vestige of the induration or en-

largement within the abdomen remains, mild aperients which he had been in the habit of taking, were used during his indisposition.' p. 10.

Case VII. Aged 21. This case presents an assemblage of anomalous symptoms. Indisposition followed the drinking of beer after a day of hard employment during harvest work. The case furnishes abundant evidence of a disordered state of the digestive and respiratory organs, and of the functions of the brain, without however much derangement of the secretions. A spontaneous eruption of a very severe character attacked the legs, accompanied with violent inflammation of the tunica conjunctiva of each eye. The eruption consisted of large red protuberances, which suppurated, and discharged pus. 'Copper-coloured defædations as large as a shilling' remained. He does not recollect ever to have taken mercury, or to have had occasion to do so. A mixed treatment, of which the tartar emetic ointment formed a part was, employed, and the patient slowly recovered.

Case VIII. Aged 15. 'About ten weeks since was suddenly frightened by a person speaking sharply to her. Her whole frame became affected with nervous sensations, and in four weeks afterwards a partial hemiplegia seized the left side. In addition to these symptoms she had chorea, affecting certain muscles of the arms and the neck, and she had also slight convulsive fits, about fifteen times in twenty-four hours, after which she was accustomed to fall into a stupor, with her eyes fixed. She could hear sounds confusedly but every thing immediately directed to the ear was perfectly unintelligible. She persevered in the usual medicines for a month or six weeks, without advantage. I then ordered the ointment to be applied, in the line of the cervical vertebræ. I saw her soon after the application was made, and found her evidently amended in every respect. She took occasionally a small dose of jalap and calomel. Her mother now, as the distance was considerable, ceased to bring her, but sent to inform me that she was quite well.' p. 12.

The ninth case is a case of mania of a very violent character. Leeches were applied to the head, and the ointment upon the leech-bites. 'As soon as vesicles appeared she was well.' The next case was also mania which followed parturition. The ointment was rubbed along the inner surface of the fore arm, from the joint to the wrist. As soon as eruptions appeared which from some circumstances did not happen till a fortnight from beginning to use the ointment, the symptoms were ameliorated, and convalescence rapid.

In the eleventh case, mania, the eruptions appeared at the end of four days from beginning the use of the ointment, 'and

she *immediately* became much better. From neglecting to use the ointment the eruptions dried away, and there was some return of insanity. A further use of the ointment was equally beneficial as before. She again relapsed. The friends now neglected the use of the ointment, and endeavoured to get her a place in St Luke's.

The twelfth case is hypochondriasis, with almost constant mental alienation. 'His countenance is pallid, bowels irregular, urine high coloured, flatulent, with heart-burn, and quick pulse. The ung. antim. tart. was applied on the pit of the stomach. He took twice a day pil. hydrarg. and aloes, with a dose of magnesia and creta twice a day. Under this course he completely recovered. Some eruptions appeared under the cuticle upon the palms of his hand and the scrotum.

Six more cases follow. These are cases of affections of the brain and nerves more or less severe, and of affections of the thoracic, and abdominal viscera. The tartar emetic ointment was as useful in these as in the case already mentioned.

After giving a slight sketch of the history of the external employment of the ointment, Dr Jenner adverts to some of the striking phenomena of eruptive diseases, particularly small-pox, scarlatina, measles and plague. The following is from what is said of small-pox. 'Morbid animal matter, generated by this disease, is applied to the body either by what is termed the natural or artificial mode. After a given space of time, in either case, diseased action is manifested by that constitutional derangement which is designated fever. This goes on for a limited period, when eruptions appear on the skin, which soon shew on their apices vesiculated specks. Here the disease, as far as it depended on the *primary action* of the infectious matter which called it into existence, terminates. But now a new train of symptoms comes on, consequent to the diseased action excited on the skin by the pustules, the influence of which is felt in proportion to their numbers, their malignancy, the disposition of the constitution, and the extent to which they penetrate the skin. The fever in the first and second instances, has two *distinct* origins. In the *first* instance, it arises from the influence of the morbid matter inhaled, or intentionally applied; in the *second*, from diseased action going forward on the skin, and, in many instances, also on the mucous membranes, of the fauces, trachea, and ramifications of the bronchia. The rapidity with which, in some instances, the secondary diseased action follows the primary, often obscures the distinction. Of this the ordinary phenomena of confluent small-pox and scarlatina exhibit familiar instances. In the first of these the skin is often

so quickly and universally assailed, that there is, in many instances, no interval of cessation. Nature is in a hurry to call out her guards.'

'Let me here introduce some practical remarks upon the benefits which may be derived from sedative applications, where the pustules are formed so thick upon the cutis as to augment in a high degree the secondary fever. From the rare occurrence of small-pox in this district, I have had no opportunities of making the experiment myself, but on suggesting it to my friend Mr Fry, he made trial of it in the case of a young woman, when the small-pox made its appearance in the town of Dursley some months since. This patient had a full burthen of distinct small-pox, and her countenance was loaded with pustules. In this state one cheek was sopped with liq. lythargyri somewhat more diluted than I intended, while the other was suffered to take its course for the sake of comparison. The consequence was, that although, from excessive occupation, this process was not repeated by Mr F. the effect was nevertheless very manifest, for the pustules were so much checked in their progress to maturation that they could be scarcely said to be matured at all. This practice suggested itself to me in consequence of using lotions which possess a chemical, probably a coagulating influence over the secreted fluid itself, as well as the organic arrangements destined to form the secreting process, in cases in which the irritative inflammation that surrounds the cow-pox pustules has a tendency to ramble too widely.

'Of this I may cursorily observe, we shall hope to see no more, if attention is paid to my instructions lately republished. The principle, I must repeat, consists in mitigating the secondary commotion in the constitution, by checking the activity of the pustules which excite it. How often have I seen violent febrile irritation in the constitution, arising from carbuncle and erysipelas, entirely removed by the use of these applications! In London, some years ago, I suggested repeatedly to the late Dr Woodville, who had such opportunities at the small-pox hospital, and again to his successor Dr Joseph Adams, in some of those desperate cases in which fatal results must inevitably follow when the disease was left to pursue its own course, to sop the skin, or even to wrap the patients in sheets wetted with liq. plumbi, but without exciting any practical attention. Even should this, or any other mode suggested by the hints thrown out, prove successful, *nature would probably require that we should leave here and there a cluster of pustules, e. g. on a leg or arm, or any other convenient part to go through their course.* I am aware of the injurious influence of lead, as no one has seen more of it than myself, but in cases like these, we are warranted in running a risk to avoid destruction OTHERWISE inevitable.' pp. 39, 40, 41.

It will be observed in the first of these quotations, that Dr Jenner offers an opinion somewhat at variance with that of Dr Cullen in his *First Lines* on the same subject. Dr J. regards the constitutional symptoms incident to the eruption, as produced by the pustules themselves, and not a continuation of those febrile symptoms which preceded the eruption, and which were the direct effect of the matter of small-pox. Hence the propriety and the success of local treatment, cooling applications to the surface; a treatment which would probably be useless, if not injurious, were these symptoms the effects of some constitutional operation of a specific cause, and not as Dr J. supposes, principally symptomatic of a severe disease of the skin. The cooling treatment in this and similar affections finds support in the similar practice of Sydenham, of which it is in fact an extension. He found much benefit from admitting the cool air to the surface of the body, in small-pox patients. A similar, perhaps greater benefit, it seems has resulted from refrigerant lotions as recommended by Dr J. How far these lotions produce their good effect by their chemical agency, as suggested by Dr. J., we are not prepared to say. Circumstances which in small pox, plague and measles, may be unfavourable or favourable, are next adverted to. A curious fact is mentioned in a note, page 44. The author had been speaking of the protecting power of spontaneous eruptions, in some of the exanthemata. We quote the note:—

‘It may be hastily objected, that neither measles nor scarlatina produce serous eruptions, but this would be erroneous. Vesications in both diseases sometimes appear, particularly on the inside of the fingers. It may not be known as a common fact, that the concremented matter, which falls sometime afterwards from the skins of persons who have measles or scarlatina, is a common source of the communication of disease from one individual to another. A young gentleman who had had scarlatina at school, was a particular proof of this occurrence. After repeated changes of linen, he was sent to the house of a relative as convalescent. He often amused himself with blowing the scaly powder which had formed on his skin upon the faces of other children and attendants, to whom he thus spread the infection.’

The protection of the constitution from other attacks of small-pox, and of those diseases which attack but once, is found in the primary action of the matter on the constitution, not in the commotion which succeeds to the eruption. From the relief noticed on the appearance of the spontaneous eruptions peculiar to these diseases, a question is asked, viz. if it might not be advantageous in non-exanthematous diseases to excite eruptions artificially?

Typhus, yellow fever, rheumatism, tetanus, dysentery, and some of the diseases induced by animal poisons, hydrophobia, e. g. are named as among those in which the experiment with the ointment might be tried.

The Use of the Ointment.

‘With regard to modes of adapting the strength and management of the application to the peculiarities of the case, my knowledge is at present imperfect. The formula which I have used in the foregoing cases has been for the most part as follows; but I sometimes find it necessary to make it more active.

R. Antim. Tartrat. (subtil. pulv.) ʒij.

Ung. Cetacei ʒix.

Sacchari Alb. ʒi *

Hydr. Sulph. Rub. gr. v.

M. fiat unguentum.

‘The time cannot be precisely fixed in which it will perform its office, as it will in some degree be regulated by the irritability of the skin and the disposition of the constitution. A patient applied the ointment according to the preceding formula, at night, and had eruptions next morning, which was within a space of twelve hours. He had, however, used the same on a preceding occasion in cold weather, and with a skin less perspirable; in this instance it was much tardier in vesicating. Perhaps the application of a cupping glass, or a sponge dipped in hot water, or even friction, before using the ointment, would be advisable, where the skin indicated torpor; but the water must be carefully wiped away previous to the application. If its speedy action is required, as in tetanus and hydrophobia, to give it a fair chance, it would be advisable that trials should be made on the thin cuticle behind the ears as well as on other parts.

‘In the case of a lady, where two parts of the tartar emetic and one of simple cerate were used, eruptions appeared in a few hours.

‘In this case I used the ointment in a degree of strength, perhaps its greatest; but though, by these means, I have usually expedited the eruptive process, I have been in some instances foiled.’ pp. 53, 54, 55.

‘The stimulus of the eruptions should be kept up for some time after its first effects have been exhibited, which may be done with facility; and I do not find patients, when a little habituated much regard it.† Sometimes it will be necessary, as is shewn in more

* Sugar prevents the ointment from becoming rancid.

† A gentleman who derived great benefit from the use of the ointment in a case of severe chronic rheumatism with lumbago, informed me, that the troublesome itching he felt from the vesicles in the course of their progress was effectually allayed by the use of the following cerate, spread on linen, and applied to the part. ‘Melt together equal quantities of unsalted butter and beeswax; let it re-

than one of the cases. Small quantities of a more diluted ointment, by reapplication to the same part, will answer the same purpose; but, if that be too tender, it may be advisable to renew it on some other. It will also be necessary to let the pustules die away gradually, as the sudden loss of their specific stimulus may be injurious to the constitution.'

Much uncertainty exists as to the part to which the ointment may most advantageously be applied. Dr Jenner confesses that all he has said relating to its use is merely a 'stepping-stone, and not conclusive.' He suggests, that there may be substances which may produce pustules more expeditiously, and hence in some cases be more useful. Two communications follow, one on the combination of the tartar emetic with savine cerate, and the other on the use of the tartar emetic ointment as suggested by Dr J., but which came too late for insertion in its proper place in the letter. In the first of these communications, a case is given in which by mistake the ointment was applied to an irritable ulcer on the forepart of the tibia. The immediate effects were violent spasmodic contractions of the muscles; and so severe were they, that the patient was apprehensive that the foot would quit the leg. Sir A. Cooper, in his Surgical Lectures, relates a case in which similar spasms followed its application to the vertebral column in a strumous subject. In this communication an appearance is mentioned which we have more than once observed in using the ointment, and more particularly in one case in which it was combined with savine cerate and applied to the nape of the neck. In these cases the vesicles are of a large diameter, having a black depression, 'appearing like an incipient sphacelus, or that sort of black eschar which happens when the cutis has been killed by burns.' In these cases the inflammation produced by the ointment goes deeply into the parts beneath, and occasionally produces great swelling in the neighbouring parts, in the forehead and face for instance, where it has been applied to the scalp. We have noticed these effects from the mildest ointment of Dr Jenner. Some caution is hence required in the use of this ointment. The effects of one application are to be observed before a second is made. If this be not done, we must not always look for the beneficial effects of a vesicular eruption. We may only destroy the cuticle by the ointment, and subject the patient to the irritation of a deep and extensive eschar. Now it may be that the good he is to derive from the ointment is to be brought about in this latter way. We are, however, not prepared to offer an explanation of its remedial operation.

main over a gentle fire as long as any scum arises, which must be carefully taken off.

In our review we have confined ourselves to the practical parts of Dr Jenner's letter. The author has freely availed himself of the licence afforded him by the form of his interesting publication. He alludes to important points in pathology, but ventures for the most part no farther than to offer a hint or two respecting them. He occasionally speculates boldly, and from his avowed love of analogy, traces near resemblances, where other men might think the relations more remote. We have called this letter an interesting publication. It is truly so, for it brings fairly before the public a very powerful agent in the treatment of disease. It has, however, another claim to the appellation. It is the latest work of one who stands preeminent among his brethren as a benefactor of mankind. It is his last work too; for since its publication, its venerable author has been numbered among the dead.*

Our readers may be gratified with the following notice of Dr Jenner, by Dr Baron, the author of the work on Tubercular Diseases.

DR. JENNER.

“This most eminent individual was suddenly cut off by an attack of apoplexy, on the morning of Sunday the 21st ultimo, in the 74th year of his age. The night before his seizure, he went to bed cheerful and in apparent health. He rose at his usual hour on Saturday, and came down stairs into his library. Not making his appearance at breakfast, the servant was ordered to go into his room: on doing so, he found his master lying on the floor, the head and upper part of the body being supported on the couch on which he had been sitting. Medical aid was instantly procured, and bleeding and other appropriate remedies were had recourse to without delay. In about four hours thereafter, Dr Baron, who had been sent for from Gloucester, arrived. Every thing then denoted the rapid approach of the fatal event. The right side was paralyzed; the pupil of the eye contracted to a point, and utterly insensible to light; the pulse small, and very irregular; the breathing most distressingly stertorous; and the extremities cold. Efforts were incessantly made to avert the impending blow, but they were quite unavailing, as death took place about seventeen hours from the first seizure.”

‘Dr Jenner, in the early part of his career, was destined to the profession of surgery, under the tuition of John Hunter, and after-

* Dr Jenner published in the September number (1822) of the London Medical and Physical Journal, a single paper on some points connected with vaccination, after the letter to Dr Parry.

wards encouraged, by the friendship and patronage of his great preceptor, to practise that branch of the healing art in London. Preferring tranquillity to fame, Jenner declined these flattering prospects, and returned to practise as physician in his native place, Berkeley, little aware how much this determination involved the interests of mankind, or his own individual reputation. He was early devoted to the study of natural history, and wrote an account of the Cuckoo, whose habits were but imperfectly known. This paper is to be found among the Transactions of the Royal Society, of which distinguished body he was soon elected a Fellow. He was the fellow-student, and in after-life the friend of the late Dr Parry, of Bath, to whom he appears to have communicated some important observations, tending to show the dependence of angina pectoris on organic derangement of the heart. But the greatest of Jenner's discoveries, and the most important pathological fact to be found in the records of medicine, relates to Vaccination. His experiments on the cow pox were begun in 1797; and, in the following year, with the laudable zeal of a disinterested mind, he communicated to the world a discovery, the concealment of which would have put it in his power to acquire wealth—we may almost say, without bounds. It is not our intention, however, to write a panegyric upon Dr Jenner, knowing him, as we did, but as a public character. The task of giving his biography, we are happy to find, is in much abler hands: that of handing down his name to posterity, he has left to no one; for, whatever the opinions with regard to the influence of vaccination may be, still, so long as the annals of our art exist, Jenner must hold a conspicuous place among the benefactors of his race.

‘His remains were deposited in the chancel of the parish church at Berkeley, as privately as possible; but, notwithstanding the wishes of his friends, the concourse who assembled to pay the last tribute to this great philanthropist, was immense. From the general feeling, as well as what passed in the House of Commons on the subject, it is to be presumed that a national monument will be erected to his memory. We observe with pleasure that a meeting was held at Gloucester, on Saturday the 22d ultimo, at which it was resolved to erect a monument in the neighbourhood of that city; the expense of which is to be defrayed by private subscription.’—*London Medical and Physical Journal*. M.

ARTICLE VIII.

A Treatise on Dislocations, and on Fractures of the Joints. By Sir ASTLEY COOPER, Bart. F.R.S. Surgeon to the King, &c. &c. &c.—1 vol. 4to. 30 plates, pp. 562. Longman and Co. London.

[From the London Medical and Physical Journal.]

ON resuming our critical labours at the commencement of a new year, we may, perhaps, be permitted to say a few words relative to an occupation so useful, and yet so invidious,—so necessary to be done, and yet so difficult to do with satisfaction to the sensitive feelings of an author, or the rigid scrutiny of the indifferent or sceptical. That we have hit this nice point, we do not even dream of asserting; but we have assuredly endeavoured to do so: we have uniformly taken up the book to be reviewed, with a determination to forget, as far as possible, the author; to extract whatever we found to be useful, or new in theory or practice; to reprehend what we conceived to be erroneous in either, so that the profession at large, and the junior part of it in particular, should not be misled by false doctrines sanctioned by high authority: nor should the good be passed by, because it presented itself to us in an unassuming, or perhaps even in an homely, garb. Upon all occasions we have endeavoured to separate the author from his work: the latter is public property, the former is sacred: the work may, if faulty, be productive of incalculable mischief, and must be exposed; our duty to our readers demands it, and, as far as our judgment and abilities permit, this object it shall always be our aim to accomplish. This intellectual dissection we will endeavour to perform in as cleanly and decent a manner as we can; for, in this, as in other dissections, the design is not to expose the subject, but to instruct the lookers on.

From this short digression we turn to the splendid work before us; in bulk, in beauty of paper and type, in the number of plates, and in the excellence of their execution, surpassing any modern publication on a professional subject with which we are acquainted,—at least in this country. On turning over the pages of this book, we were at first tempted to exclaim against the numerous errata of the press which we encountered on every side; but, when we began the perusal *seriatim*, we were so struck with the author's candid avowal of this error, that we were induced to strike out the reprehension which this unlucky

discovery had elicited. However, we must notice particularly one of these errata in this place, because it is not corrected, and it directly affects the sense of the passage: it occurs in page 338, and will be more particularly pointed out in its place. Our experienced author also endeavours to obviate any objection that may be raised against the familiar and occasionally colloquial style of the work; declaring 'that he had rather be seen in a good plain suit, than in the finest embroidered dress.' (Preface, p. vii.) It is, however, to be recollected that a certain attention to dress is necessary to obtain admission into the *best society*; and (dropping the metaphor) that, as this volume is intended to go down to posterity, and will most assuredly do so, the style is a matter of more importance than in those ephemeral publications which are born only to die.

Many may consider these preliminary remarks, perhaps, as rather fastidious; but let them recollect that Sir ASTLEY COOPER is likely to be quoted as an authority, and followed as an example; and, therefore, it behoves us more especially to notice those points in which he has failed, lest they should be adopted by others who do not possess his eminent and redeeming merits.

We have but one more remark to make before we enter upon the analysis of the work, and that remark relates to the price at which this book has been published: certainly a very noble instance of liberality on the part of the author, but which must not lead us to form unfair conclusions with respect to other authors less fortunately circumstanced, and who have it not in their power, whatever their wishes might suggest, to follow this splendid example.

The bulk of this volume consists of a reprint of the Essays on Dislocation, published in the octavo edition, with some additional matter: the plates, however, are new, and increased both in number and size, as well as in beauty of execution. Sir Astley Cooper informs those who are in possession of the former edition, that, for their convenience, he will print the additional matter in the octavo form, provided they express their wishes and send their names and address to him, within three months after this publication.

Sir A. Cooper commences his work with remarks on dislocations in general, and almost immediately details an interview which a patient, whose shoulder had been dislocated 'many weeks,' had with him. It appears that the surgeon in the country had mistaken the nature of the accident; and our author's advice to the patient was, not to suffer any attempt at reduction. We do not in the least doubt that Sir A. Cooper's

advice was highly judicious ; but he seems to anticipate, in his preface, that his professional brethren may imagine that he has limited the period at which reduction may be attempted too strictly : and, with respect to dislocations of the shoulder, there is some reason to think that he has. ‘ A considerable share of anatomical knowledge’ (we quote Sir Astley’s words.) ‘ is required to detect the nature of these accidents, as well as to suggest the best means of reduction ; and it is much to be lamented that students neglect to inform themselves sufficiently of the structure of the joints. They often dissect the muscles of a limb with great neatness and minuteness, and then throw it away *without any examination of the ligaments ; a knowledge of which, in a surgical point of view, is of infinitely greater importance.*’ We have printed this very important remark in italics, in order to call the particular attention of our younger readers to it, fully agreeing with our author, both in the truth of his remark, and great importance of impressing it strongly on the minds of all classes of students in our profession.

Yet, with the most accurate knowledge of the structure of the joints, the tumefaction and tension arising from the injury occasionally so obscure the nature of the accident as to render it extremely difficult to be detected ; therefore, conclusions drawn when the swelling has subsided, the muscles are wasted, and the head of the bone can be distinctly felt, would be both ‘ illiberal and unjust.’

The immediate effect of a dislocation is to alter the form of the joint ; often to produce a change in the length of the limb, to occasion the almost entire loss of motion, and to alter the axis of the limb. In the first moments of the dislocation, it is to be remembered that considerable motion remains. In a case at Guy’s Hospital, where the thigh was dislocated into the foramen ovale, a great degree of mobility of the bone existed at the dislocated part, but in less than three hours it became firmly fixed in its new situation by the permanent contraction of the muscles. This is very important to remember, because mobility of the bone is one of the most marked symptoms of a fracture of its neck, though in this case the knee is turned *outwards*. After describing the usual criteria by which dislocations are known, Sir Astley observes that, among the more remote effects of these accidents, the crepitus produced by the effusion of adhesive matter into the joint and bursæ, may induce the practitioner, if he be not aware of it, to suspect a fracture where none has occurred. Inflammation of the joint occasionally is also so severe as to produce suppuration, and to de-

stroy the patient, even after the reduction of the dislocation ; and two cases of fatal result are mentioned. (p. 7.) We believe this seldom occurs, except in dislocations of the thigh.

Sir Astley's description of the dissection of dislocated joints is, of course, accurate ; but, as it presents no novelty, we pass on to observe, that dislocation sometimes arises merely from a relaxation of the ligaments of the joints, of which three instances are inserted, where the patella was dislocated in that manner. Relaxation or paralysis of the muscles will also sometimes produce the same effect ; but these accidents may be considered as comparatively rare.

It is well known that the hip-joint frequently becomes dislocated in consequence of ulceration. Sir Astley Cooper mentions a preparation, now at St Thomas's Hospital, where the knee was dislocated by ulceration ; and a case of the same kind occurred in a boy, a patient at Guy's Hospital.

Dislocation accompanied with fracture is a common occurrence at the ankle joint. At the hip joint, the acetabulum is occasionally broken off. The head of the humerus, and the coronoid process of the ulna, also may experience the same fate.

In the event of a fracture and dislocation occurring at the same time, our author advises the dislocation to be reduced before the fracture be adjusted, and confirms his opinion by the case of a gentleman who had his leg broken and his shoulder dislocated : the latter was not attempted to be reduced until a fortnight after the accident, and then the attempt failed, the fractured leg prohibiting the employment of the necessary degree of force.

A compound dislocation is next defined, its essence consisting in the exposure of the cavity of the joint, in addition to the displacement of the articulatory surfaces : of course, the effect is an extravasation of blood into the joint, and the escape of the synovia. (p. 18.) We need hardly add, that these accidents are declared by our author to be attended with *great danger*. In explaining the causes of this danger, Sir Astley says, 'When a joint is opened, inflammation of the lacerated ligaments and synovial membrane speedily succeeds ; in a few hours suppuration begins, and granulations arise from the synovial membrane, which, being a *mucous membrane*, is more disposed to the suppurative than to the adhesive inflammation.' Here we humbly conceive there is a slight pathological error : we always regarded the essential characteristic of a mucous membrane to be, one which communicated with some external opening of the body ; and we have been taught to consider the

synovial membranes as a class by themselves. The leading circumstances that render this species of dislocation so serious are then described; but the mode of treatment is deferred until the compound dislocations of the ankle are described, 'where they will be better understood; and thus a repetition, which would be both irksome and useless to the reader, will be avoided.' (p. 19.)

On the causes of dislocation, our author observes, that, when the muscles are unprepared for resistance, very slight accidents will often bring about the effect. A fall in walking will sometimes dislocate the hip joint, when the muscles have been prepared for a different exertion.

Dislocations of the elbow joint in children, Sir Astley thinks to be rare; such cases usually being, in reality, fractures of the condyles of the os humeri, which assume the appearance of dislocation in consequence of the radius and ulna being drawn back with the fractured condyle.

In enumerating the circumstances that impede reduction, our learned author mentions the form of particular bones, or the cavity that receives them, may in part occasion the difficulty. He very judiciously combats the supposition that the capsular ligaments resist reduction; neither do they appear to have any power in preventing the occurrence of the dislocation: it is the ligaments peculiar to the joints, and the tendons spread over them, that form the principal obstacles to the displacement of bones, and the resistance of the muscles which is the most formidable obstacle to their re-adjustment. When a bone has been a long time displaced, the extremity also contracts adhesions to the surrounding parts. Sometimes also the socket of the bone becomes filled with adhesive matter; and, 'lastly, a new bony socket is sometimes formed, in which the head of the bone is so completely confined that nothing but its fracture could allow it to escape from its new situation.' (p. 29.)

The means of reduction are divided by our author into constitutional and mechanical: the former are principally three,—bleeding, warm-bath, and nausea. Of these, Sir Astley considers bleeding the most powerful; and the operation should be performed in the erect position, in order that syncope may the more speedily be induced: an opinion in which we entirely concur, and which we are surprised to find so often mentioned by different professional men, and yet so seldom practised. The warm-bath is next recommended, the method of using which is sufficiently known; and the third plan is that of exciting nausea, by means of tartarized antimony in small doses, which however will seldom succeed alone, as the operation of that medicine is so very uncertain and dissimilar in different individuals; and it

becomes a matter of great difficulty to obtain the exact effect that we wish to produce. Our author, therefore, is induced to employ it chiefly to keep up the state of syncope already produced by either of the former methods.

In describing the mechanical means, it is observed that force must only be gradually employed; an excellent rule, too often neglected: for violent force most assuredly calls 'up all the powers of resistance to oppose the efforts making by the surgeon.'

The next precept is also of the highest importance: it impresses upon the surgeon the necessity of fixing the bone in which the socket is placed; a point which Mr BLOMFIELD has most ably stated and illustrated in his surgical works.

In dislocations of the hip-joint, pullies should always be employed; as also in those of the shoulder which have long remained unreduced. In attempting reduction, a relaxation of the principal muscles of the limb must be obtained by such a position as will best effect that object.

The following rule is also important, and concludes this branch of the subject: 'Great advantage is derived in the reduction of dislocations from attending to the patient's mind; the muscles opposing the efforts of the surgeon, by acting in obedience to the will, may have that action suspended, by directing the mind to other muscles.' p. 34.

Sir Astley concludes these general remarks by giving it as his opinion, that attempts at the reduction of the shoulder should not be made later than three months after the accident, and for that of the hip not after eight weeks: at the same time he is aware that the shoulder has been reduced at a much later period, though without any improvement to the patient, as far as the use of the limb was concerned.

We come now to the consideration of particular dislocations, and first in order is dislocation of the Hip-joint. This bone may be displaced in four different ways: 1st, upwards, or on the dorsum of the ilium; 2dly, downwards, or into the foramen ovale; 3d, backwards and upwards, or into the ischiatic notch; and 4thly, forwards and upwards, or upon the body of the pubes.

The dislocation upwards is the most common of these accidents: in this case, the limb is *shorter*, the knee and foot are turned *inwards*, the thigh cannot be separated from the other: the head of the bone may sometimes be perceived moving upon the dorsum of the ilium; the trochanter is less prominent, and the roundness of the hip is lessened, compared with the opposite side. In order that the surgeon may not confound this accident with the fracture of the neck of the bone, he must recollect that,

in this latter case, the knee and foot are *generally* turned outwards, the trochanter is drawn upwards; the thigh can be bent *towards the abdomen*, and the limb, though shortened, can, by a little extension, be rendered of the same length as the sound one; sometimes also, in rotating the limb, a crepitus can be felt. This fracture (within the capsular ligament,) also seldom occurs but in aged subjects. In the dislocation upwards, the glutei and triceps muscles principally resist reduction.

In the description of the method of reduction, the leading points insisted upon are the gradual extension, the gentle rotation of the knee and foot, when the extension has been carried far enough; and the necessity that sometimes occurs of lifting the head of the bone over the lip of the acetabulum, which may be effected by placing an arm under the limb, near the joint, or by a napkin placed under it, and raised by an assistant. It is needless to add, that the extension in these cases must be made by means of pulleys, and the constitutional means recommended above must be previously employed. Thirteen cases are subjoined to illustrate the precepts above mentioned. It is to be observed, that, in many cases, particularly those of long standing, the bone returns into its socket without any snapping noise.

On the dislocation downwards.—This happens when the thighs are widely separated. In contradiction to what is usually said, Sir Astley Cooper asserts that, in this accident, the ligamentum serres is torn through; the thighs, and consequently that ligament, being upon the stretch at the time of its occurrence. The limb is shorter than the other in these cases. In very thin persons, the head of the bone may be felt upon the inner and upper part of the thigh towards the perinæum; the body is bent forwards; if the body be erect, the knee is considerably advanced; it is widely separated from the other. The foot is not generally turned either outwards or inwards, though in this respect it varies a little; and, finally, there is a hollow below Poupert's ligament.

The reduction of this accident is, says our author, very easily effected. If it has happened recently, place the patient on his back, separate the thighs as much as possible, and fix the body by placing a girth between the pudendum and upper part of the thigh, fixing it to a staple in the wall. The surgeon then puts his hand upon the ankle of the dislocated side, and draws it over the sound leg, and the head of the bone slips into the socket. (p. 67.) This plan, however, will not succeed if the dislocation has existed two or three weeks: in that case the pulleys are required; the thigh is to be drawn upwards, whilst the knee and foot are pressed down, to prevent the lower part of the limb be-

ing drawn with the thigh-bone. Great care must be taken not to advance the leg in any considerable degree, or the head of the thigh-bone may be forced into the ischiatic notch. One case only of this accident is recorded; and the peculiarities of the limb are minutely described in another instance, which had not been reduced.

On the dislocation backwards, or into the ischiatic notch.—The anatomical description of the parts clearly shows that the direction of this dislocation is a little *upwards* as well as backwards; the head of the bone rests, in these cases, on the pyriformis muscle behind the acetabulum. This is the most difficult to detect, or to reduce. It seldom happens that the limb, in this dislocation, is more than half an inch shorter than its fellow; the head of the bone can seldom be distinctly felt; the knee and the foot are turned a little inwards, and the toe rests against the ball of the great toe of the other foot; the heel, when the patient is standing, does not quite reach the ground; flexion and rotation are in a great degree prevented. A description of a dissection, and an accompanying plate, explain the wonderful provisions of nature in adapting herself to new circumstances. This accident is caused by the thigh being bent at right angles on the abdomen, or *vice versâ*, and force applied to the knee pressing it inwards. The reduction is difficult. The usual mode of fixing the pelvis is followed; the thigh is brought across the middle of the sound one, and extension is then made; but, as it is necessary also to lift the bone over the lip of the acetabulum, an assistant passes a round towel under the upper part of the thigh and over his own shoulders, who, pressing with his hands upon the brim of the pelvis, lifts the bone by raising his body. (p. 78.) In the first case, a patient of Mr Lucas's, we find that extension was made by pulleys in a right line with the body, the trochanter was thrust forward with the hand, and in two minutes the bone returned into its socket with a violent snap. The young surgeon will do well to recollect these two very different methods of arriving at the same end. The fifth and last case of this kind detailed is important, because it shows that the bone is occasionally reduced without any snapping or noise, so that the surgeon has nothing to trust to but the appearance and mobility of the limb to assure him that the bone has been properly replaced.

Of the dislocation on the pubis.—This accident is easy of detection: the limb is an inch shorter than the other; the knee and foot are turned outwards, and cannot be rotated inwards; the head of the bone may be distinctly felt on the pubis, above the level of Poupert's ligament, on the *outer side* of the femoral artery and vein. Notwithstanding these striking marks, Sir Astley Cooper has known three instances in which this accident

was overlooked. In reducing this dislocation, the difference to be observed is, that the extension is to be made in a line *behind* the axis of the body, the thigh-bone being drawn backwards. After extension has been carried on for some time, an assistant, with a napkin passed under the thigh, lifts the head of the bone over the pubes and edge of the acetabulum, pressing at the same time with one hand on the pelvis. Of twenty dislocations of the thigh, Sir Astley thinks the relative proportion would be, twelve on the dorsum ilii, five in the ischiatic notch, two in the foramen ovale, and one on the pubes.

We were surprised to find it asserted, upon the authority of Mr CLINE, that SHARP did not believe that a dislocation of the thigh-bone ever occurred. Mr Cline's authority no one can doubt; and, granting the fact to be so, we can only lament how much surgery must have retrograded from the days of honest WISEMAN, who has a short chapter on this very accident, which he says may happen in *four different ways*. This much, at least, is quite certain, that Mr Sharp does not expressly treat of, or mention, dislocations of any kind, either in his *Critical Inquiry*, or in his *Treatise on the Operations of Surgery*.

It will be seen that we have closely analyzed the whole of Sir Astley's valuable observations on the subject of dislocations of the hip, conceiving that, by condensing the more important facts necessary to be borne in mind relative to these accidents, we shall have done an essential service to those who have not the means of getting immediate access to the work itself; so that, in the event of a sudden emergency, the practitioner might turn to our account, and not turn to it in vain. We know no form of compliment that can more substantially mark our estimation of the importance of the practical precepts it contains.

We come now to the consideration of Fractures of the Os Innommatum, which may be mistaken for dislocation, as the leg is somewhat shorter, the trochanter is more forward, and the knee and foot are turned inwards, as is the case in dislocation in the ischiatic notch; but it is to be remembered that, if the hand be placed on the crista of the ilium, and the thigh be moved, a crepitus may generally be felt; and there is more motion preserved than in dislocations.

Of Fractures of the upper part of the Thigh-bone.—Every surgeon knows the conflicting opinions that have been entertained with regard to the final result of these accidents. Sir Astley Cooper thinks that this difference of opinion has arisen from confounding three very different species of fracture under the indiscriminate appellation of fracture of the neck of the thigh-bone, (p. 115.) That these fractures admit of union our author admits

as far as concerns two species of them, but not with respect to the third. On this subject Sir Astley produces his observations on living subjects, the result of his dissections, and his experiments upon animals. These accidents are of so frequent occurrence, compared to dislocation, that the wards of Guy's Hospital are seldom without an example. The three varieties of this accident already mentioned are—1st, fracture through the neck of the bone, entirely within the capsular ligament; 2dly, at its junction with the trochanter major, which is external to that ligament; and, 3dly, when the bone is broken through the trochanter major, beyond its junction with the cervix femoris.

It is not our intention to pursue this inquiry step by step: it is needless to say, that the symptoms are accurately described, and the distinctions which mark the nature of the accident are forcibly delineated; we must therefore confine ourselves to such observations as appear to us more particularly tending to confirm the opinions usually entertained on this side of the Channel. It is well known that fractures of the neck of the thigh-bone within the capsular ligament are more frequently met with in women than in men, and that it is an accident confined to an advanced period of life, which the condition of bone in aged persons easily accounts for. Our author denies that this fracture, when transverse, ever unites; and he declares, that all the dissections he made in early life, and the opportunities he has since had of confirming these observations, have fully convinced him that such is the fact. A case in which our author was consulted, and in which the medical attendant had from week to week promised an union of the fracture, leads to an animated appeal to young medical men to *observe*, and not to speculate; and we fully agree with him, 'that nothing is *known* in our profession *by guess*.' Indeed, we can scarcely conceive any wider difference than that which exists between guessing and knowing. Firmly, however, as this belief is fixed in Sir Astley's mind, he does not deny the *possibility* of union occurring under certain circumstances; but he is convinced that it must be extremely rare, and he declares that no instance of it has occurred to him.

The causes of this want of union are next scrutinized. The first reason assigned by our author is, that, unless bones are not *nearly* in opposition, ossific union is prevented: this he verifies by two instances of fracture, where portions of the tibia were sawn off, and no ossific union took place. He also observed the same result in experiments which he made for this purpose on rabbits; in one of which only one-ninth of an inch of the radius was removed, and the extremities were not united to each other. We were about to quote Mr DUNN's case as a set-off against these

experiments; but, as we find that, in his case, the fibula, though fractured, was not protruded with the tibia,—neither was any portion of it removed,—Sir Astley's conclusions, we conceive, remain still unshaken. The second reason which prevents a boney union, is the want of pressure of one bone on the other, which is increased by the effusion of an additional quantity of fluid within the capsular ligament. But the third reason is, perhaps, the most conclusive of all; and that is, the little action in the head of the thigh-bone when separated from its cervix, its life being then solely supported by the ligamentum teres. In describing the dissection of these cases, we find Sir Astley more than once using the term 'serous synovia,' to express a thinner species of that fluid than is commonly met with. We have already ventured to protest against the synovial membrane being called a mucous one, and therefore we were grieved to perceive that our author, in this place, has *very nearly* called it a serous one. We are partial to precision in language, and therefore have presumed to notice this additional instance of inadvertence and haste.

Having described the appearances on dissection, our author gives us the result of some experiments on rabbits and dogs, in which he contrived to fracture their thigh-bones within the capsular ligament, and they all confirm the opinion previously delivered; the whole evidence fully establishing, in our mind, the point which Sir Astley has undertaken to prove.

In describing the treatment of this fracture, our author mentions several contrivances that have been adopted, all with the intention of keeping the limb fully extended: the double inclined plane; the plan of suspending a weight to the foot of the fractured side, at the same time taking measures to prevent the body descending in the bed; the extension of both legs, and fastening them securely together at the ankle; and the splint of Boyer, are all mentioned; and, finally, a plan recommended by Mr Hagedorn is detailed, which Sir Astley mentions as ingenious, but which he thinks will not prevent a displacement of the bone on every motion which the patient is constrained to make for the purpose of evacuating the fæces: he nevertheless, in the spirit of candour that pervades his whole work, recommends a fair trial to be given to it. After all, however, Sir Astley concludes, that all the means he has seen used have proved unavailing. 'I have been baffled,' he says, 'at every attempt to cure, and have not yet witnessed one single example of union in this fracture.' With respect to the instances of success that have been published, he is incredulous, because he thinks that the authors are not aware of the distinctive marks of the fracture with-

in the ligament; and which inference he draws from their not mentioning the age, the little shortening of the limb, and the degree of suffering, in their account of these accidents. He can, however, conceive that, if the periosteum covering the neck of the thigh-bone should not be torn through, or that, though the head of the bone be broken, the cervix remains in the acetabulum, that union may be produced; but then he says, that in neither of these rare cases will the limb exhibit the shortened state, which the fracture of the neck of the bone *usually* produces. (p. 143.) There is surely some discrepancy between this last sentence and the preceding paragraphs; for, if union *might* be produced in these two instances, the shortened state of the fractured limb is the only criterion by which that may certainly be known, and which usually (it is not said invariably) takes place, we cannot be justified in neglecting to make the attempt, for a length of time at least sufficient to ensure success, under the possibility of either of the above-mentioned conditions of fracture having existed. 'The surgeon,' says our author, 'must be very careful of the opinion which he gives of the result of these cases. Lameness, in the transverse fracture, is sure to follow; but its degree cannot, at first, be exactly estimated.' (p. 144.) It appears that the dissections of several cases of these fractures by Mr COLLIS, [Colles,] of Dublin, fully confirm these opinions.

Of fracture of the neck of the thigh-bone without the capsular ligament we shall merely observe, that ossific union may in these cases be expected; and several are detailed, together with the appearances of the bone and joint on dissection. In the treatment of these fractures, the limb is kept in an extended position most perfectly by binding it firmly round the ankle to the sound one, which thus becomes *the splint* to the fractured bone. Various modifications of the double inclined plane have also been employed with success in similar cases, but want of room forbids us to enter into a more minute description of the apparatus.

The fracture through the trochanter major may take place obliquely, without the cervix femoris being at all concerned. The altered position of the trochanter major, and the crepitus upon moving the limb, are the distinguishing marks of this accident, in which ossific union takes place very firmly and quickly. From the detail of the long case communicated by Mr HARRIS, of Reading, we find that the fracture of the great trochanter may take place without producing either eversion or inversion of the foot, or shortening of the limb; that the crepitus may also at first remain unnoticed; and that the pain in moving the limb (except across the sound one,) may be but

slight. We must here take occasion to observe, that we are sorry that this case had not been curtailed prior to publication: it contains some passages which we do not quite like, and which, however unexceptionable, in a private letter from Mr Harris to Sir Astley Cooper, leave an unpleasant impression upon our minds, which we cannot well express, but which we are confident the attentive reader will understand.

Of fracture just below the trochanter we shall only observe, first, that, if ill-treated, great deformity ensues from the overlapping of the bones, in consequence of the contraction of the *iliacus internus* and *psoas* muscles; and that, consequently, the mode of preventing this deformity is to elevate the knee very much over the double inclined plane, and to place the patient nearly in a sitting position: the reasons for which mode of treatment the anatomist will immediately understand and appreciate.

We shall now proceed to the discussion of the chapter on Dislocations of the Ankle-joint, which, on many accounts, we consider one of the most important in the whole work: to arrive at this point, we have passed over upwards of fifty pages rich with a variety of matter on dislocations and fractures of the Knee-joint, Patella, &c.; but, besides that our space is too limited to enter into the consideration of each of these subjects individually, we did not encounter any thing in that portion of the work which called for our especial notice. It must be read,—it should be *studied* by the young surgeon, for it is rich in facts, and full of practical wisdom.

On Dislocations of the Ankle-joint.—A concise anatomical description of this joint, together with its ligaments, leads to an enumeration of the different directions in which dislocation may occur in the ankle; three of which only our author has seen, namely, inwards, forwards, and outwards. It is said sometimes to be dislocated backwards; and it has also been thrown upwards between the tibia and fibula. Simple dislocation of the tibia inwards is often connected with fracture of the lower end of the tibia and fibula. In order to distinguish this latter fracture, the leg must be grasped by the hand just above the ankle, and the foot must be freely rotated. In effecting the reduction, let the patient be placed upon the injured side; the leg is to be bent, to relax the muscles; extension made with the foot, in a line with the leg; the surgeon then fixes the thigh, and presses the tibia downwards. Let the leg then be kept on its side in the bent position, with the foot well supported, and a many-tailed bandage applied to keep the parts in their places; two splints, each having a foot-piece, should then be placed on

the leg. In the event of inflammation, the usual local and general means of subduing it must be had recourse to. In five or six weeks, the patient may be moved from his bed, and put on crutches; but a much longer time will elapse before he regains the perfect motion of the foot.

We shall pass by the simple dislocation of the tibia forwards, a case by no means unfrequent, in order to notice a partial dislocation of the same kind, which is more rare: in this case, the bone rests half on the os naviculare and half on the astragalus; the fibula is broken; the foot appears but little shortened, nor is there any great projection of the heel. The diagnostic signs are the following: the foot is pointed downwards, and a difficulty is felt in attempting to put it flat to the ground; the heel is drawn up, and the foot is in a great degree immoveable. In a case of this kind, it appears that our author was baffled in his attempts at reduction; and he warns us, in all similar cases, not to rest satisfied until the foot be returned to its natural position, however slight the deviation may at first appear to be. The reduction is effected by the same means as are employed in the complete dislocation forwards.

The luxation of the tibia outwards is the most dangerous of the three; for, in this case, the malleolus internus is obliquely fractured and separated from the bone; the astragalus is also sometimes fractured, and the lower extremity of the fibula is broken into several splinters. In this accident, the proper ligaments of the joints remain untorn, if the fibula is broken; but, if not, they are ruptured; the capsular ligament is torn at its outer part. Reduction is effected 'by placing the patient on his back; the thigh is bent at right angles with the body, and the leg at right angles with the thigh; the thigh is then grasped under the ham by one assistant, and the foot by another, whilst the surgeon presses the tibia inwards towards the astragalus.' (p. 248.) The position of the limb is to be the same as in simple dislocation. The greatest care must be taken to prevent the foot from being twisted inwards or pointed downwards; and, for this purpose, two splints, with a foot piece to each and padded, must be applied to the ankle on the outer side of the leg. The severity of this accident calls for more vigorous measures with regard to depletion, an inflammation to a considerable extent may usually be expected to follow its infliction.

Of compound Dislocations of the Ankle-joint.—We have already said that, in our estimation, this chapter is the most important one in the whole volume, since it involves a point of practice that has been long and warmly contested, and upon which it is very difficult to speak without saying too little or too

much. We have read it over carefully again and again, and we confess the impression that it has left in favour of making the attempt to save the limb in these accidents is stronger than, upon reflection, our calm reason and sober judgment can approve. We do not in the least doubt that Sir Astley Cooper *himself* is perfectly master of all the niceties of each possible case, and that he would decide most judiciously upon any contingency that might arise; but we do not think that he has been altogether happy in placing his subject in a clear point of view, or in dwelling upon those peculiar features of the accident that so often render amputation absolutely necessary; and we should fear that the young surgeon, from the perusal of this chapter, would be led to the almost indiscriminate attempt to save compound dislocations, the encouragement to save so much overbalancing the warning of danger; a mode of practice which we are confident our experienced author had no intention of recommending, without considerable limitation and restriction. Indeed, these limitations are mentioned; but they appear to 'halt in the rear' of so many brilliant and extraordinary instances of success, as to be likely altogether to escape the notice of the young and the sanguine. It may be, indeed, that our author thought the young surgeon wanted no spur to perform an operation; and that, therefore, he has made the possibility of dispensing with the knife more prominent than he would otherwise have done.

The first general remark suggested by the perusal of this chapter, is that the whole of the successful cases which he has detailed include nearly every one of the circumstances which he afterwards asserts to be *separately* a substantial reason for amputation: thus, in one we have extensive suppurations;* in another, great deformity of the foot;† in a third, an extensive lacerated wound;‡ and finally, in a fourth, both an advanced period of life and an irritable habit of body.§ The sixteen cases which are published from the correspondence of a number of medical practitioners, in various parts of England, and the nine cases occurring either in his own practice or those of his immediate pupils, have too much the air of being select cases. It is to be observed, that almost all these accidents occurred in young and healthy subjects, with the exception of three; that many of them were boys, or young persons in the prime of life; that extensive *contusion* of the integuments does not appear to have occurred in more than one or two instances; and that, therefore, we cannot be satisfied with the evidence he has ad-

* Case iii.

† Case ix.

‡ Case x.

§ Case xi.

duced, unless it be corroborated by that of the hospital surgeons of the metropolis generally, which we are induced to believe is not so favourable to the plan recommended, but that the failures in the attempt to save limbs so dislocated have been so numerous as to form a very strong argument against the doctrines here delivered. In short, we must warn the young surgeon to recollect, in spite of the high authority of Sir Astley Cooper, (and no one values that authority more than we do,) that, whilst he acknowledges that cases such as he describes have been saved, these results are not of every-day occurrence; and that, before the attempt be made, the age, constitution, habits and situation of life, and the command of proper comforts and attention, must be duly weighed, before a right and sober judgment can be formed as to the possibility of saving a limb. Many of these reflections, which ought to precede the decision of the question, become in the event prominent, when that event has been fortunate; but how many instances of failure are passed by? how many cases, fatal in their result, but most instructive to the living, are omitted? and which, from their very failure, become interesting, as they tend at once to clear up the difficulty which surrounds this important and much-disputed point.

Let us now leave these general remarks, and resume our analytical labours.

The immediate consequences of the compound dislocation of the ankle-joint, is the exposure of its cavity and the escape of the synovia; inflammation soon becomes established, in which the extremities of the bones and ligaments are equally involved, and suppuration ensues in about five days. Under this process the cartilages become wholly or partially absorbed. This process is attended with severe constitutional irritation, and often lays the foundation for exfoliation of the bones. The granulations arise from the surfaces of the bones and the inner side of the ligament, and thus the intervening cavity becomes filled. Sometimes, says our author, the adhesive process occurs at one part, and the cartilage is not absorbed; whilst granulations are formed at others, where the cartilage was removed by ulceration; and he has seen, after inflammation in the joints, the cartilages remain, and their surfaces adhere. (p. 251.) But permanent ankylosis does not necessarily ensue; for, by employing passive motion as soon as the inflammation has subsided, some degree of motion will be restored: sometimes, indeed, this deficiency in the mobility of the joint is but little apparent. The following circumstances then occur, as necessary consequences of this accident: an extensive suppuration over the joint, with great constitutional derangement; then an ulcerative

process, more or less extensive, by which irritative fever is kept up for a *great length of time*; and sometimes, in consequence of ulceration extending to the extremities of the bones, an *additional* constitutional irritation, and protracted disease from exfoliation. After some farther discussion upon the causes of the symptoms, our author then proposes his principal question—'Is amputation generally necessary in compound dislocations of the ankle?' His answer is, certainly not. Now, let us contrast this opinion with the following reasons, that he himself declares will give rise to a necessity for amputation in these cases, and then we shall see that this decided negative must be received with much reservation; and that the young surgeon must weigh every one of these circumstances well in his mind, together with all the local and individual peculiarities of the patient, before he can fairly appreciate the force of the precept, which, we do not hesitate to repeat, is both urged too forcibly, and put in a point of view much too prominent and encouraging. The reasons in favour of amputation are—1st, a very extensive lacerated wound; 2dly, the bones being very much shattered; 3dly, it sometimes happens that, when the bone is replaced, it will not remain in its situation, and all the symptoms of the injury become *removed*, (*renewed* is undoubtedly the word intended to be employed, and without which the sentence is unintelligible;) 4th, mortification of the foot; 5th, excessive contusion; 6th, extensive suppuration; 7th, exfoliations of the bone, which, being locked into the surrounding parts of bone, cannot be separated; 8th, excessive deformity of the foot; and, lastly, an irritable state of the constitution.

In the first nine cases recorded by our author, the patients were all in the vigour of life, none exceeding the age of forty-eight. The tenth case is that of an aged man (seventy), intemperate and gouty: the accident was of the worst kind; the articulating surfaces filled with blood and sand, the end of the bone covered with dirt, the man having got up and endeavoured to stand after the accident, and the foot completely turned outwards: in this state he was removed four miles to his residence. This limb was saved, in consequence of the man's refusing to submit to amputation. The case was, within a twelvemonth, brought to so successful a termination, that by the end of that time he could walk without a stick. The remaining cases, with one exception, all relate to young persons; and we pass over the particulars of their treatment, because we shall presently detail the plan recommended by our author to be adopted when it is determined to attempt saving the limb, as including every thing that can be said upon the subject.

From the letters addressed to Sir Astley Cooper upon this subject, we shall venture now to extract a passage or two; and the first that we shall notice is contained in one from Mr. CHANDLER, of Canterbury. After observing that, in fifteen years, only two accidents of the kind under consideration had occurred, either in his practice or that of his coadjutor, Mr FLETCHER, but which two cases terminated favourably, he goes on to say, 'In accomplishing so desirable a point (that of saving the limb), the advantages obtained in a country hospital will, I apprehend, bear a greater proportion in the scale of success, than when the patient is placed in a crowded infirmary of a large manufacturing town, or in the metropolis: the constitution will, in general, be less impaired by excess, poverty, and other circumstances; whilst purity of air in well ventilated wards materially contributes towards recovery, even if the injury to the joint be extensive; we consequently can be permitted to take greater latitude with our curative means upon an injured joint, relying on the powers of nature, without being under the immediate necessity of anticipating the issue resulting from unfavourable habits, and in situations inimical to disease.' (p. 281.)

The next extract we are induced to make is from Mr HAMMICK's letter, dated from Plymouth, and which our author very truly designates an excellent letter. This gentleman begins by saying that many cases of compound dislocations have fallen under his care and observation, in the course of twenty-four years, and the result of his experience is, that there is not only a chance of saving the limb, but of its being at a future time useful. He very minutely and satisfactorily describes his mode of proceeding where there is a probability of saving the limb, and then continues in these words:—'I have seen more than one case where, after great perseverance and risk, the limb has been saved, but, when the wounds were all healed, found to be of *little or no use*. As an example, a man who had had a compound dislocation of the ankle in the West Indies, from whence he was sent to England as an invalid, became my patient in this hospital, and, when received, (a period of thirteen months from the accident,) had the whole of the lower head of the tibia exposed, black, and carious; which, at the end of a year and a half, came away, more than three inches in length; and, at the end of three years and a half from the injury, he quitted the hospital with the wound healed, but with a shortened, deformed, and ankylosed leg, liable to break out on the slightest injury.—From all I have seen, I should not hesitate to advise the immediate removal of the limb, where the lower heads of the tibia and fibula are very much

shattered,—where, together with the compound dislocation of these bones, some of the tarsal bones are displaced and injured; where any large vessels are divided, and cannot be secured without extensive enlargement, and disturbance of the soft parts; where the common integuments, with the neighbouring muscles and tendons, are considerably torn; where the protruded tibia cannot by any means be reduced; where the constitution of the patient is enfeebled at the time of the accident, and not likely to endure pain, discharge, and long confinement.'

Having now reversed, in some measure, the arrangement of our author, by pointing out the discouraging circumstances that attend these accidents, and drawn the attention of the young surgeon to those points of the case that demand his peculiar consideration, and which he may be obliged to decide upon in a moment, we shall pursue our course, and describe the treatment of these accidents, being well assured that the vast importance of the subject does not render it necessary for us to apologize for having devoted so large a share of our attention to this discussion.

The mode of reducing the bones differs in no respect from that which has been described in treating of simple dislocations, and, when that is effected, a piece of lint dipped in the patient's blood forms the most natural covering to the wound. A many-tailed bandage, the portions of which should not be sewn together, is then applied: by this plan, any one piece that becomes stiff may be renewed without disturbing the limb. This bandage should always be kept wet with spirits of wine and water. In the inward dislocation, the limb should rest upon its outer side, having on that side a hollow splint applied, with a foot-piece, at right angles; but, in the outward dislocation, it is best to place the limb on the heel, with a splint and foot piece on each side, and with an aperture in the splint opposite to the wound. In each case the knee should be slightly bent, and great care must be taken to keep the foot at right angles with the leg. The patient should lie on a mattress, and a pillow should extend half-way above the knee, and another rolled under the hip, to support the upper part of the thigh bone.

The constitutional treatment next becomes a matter of consideration, the necessity for which depends, of course, upon the state and habit of the patient; but, with regard to purgatives, they must be used with great caution, on account of the disturbance they must necessarily occasion to the limb; and our author says he is quite sure that, in compound fracture, he has seen patients destroyed by their administration. The bleeding and purging should be effected as soon as possible after the infliction

of the injury, *before* inflammation arises ; after which, the liq. ammon. acet. and tinct. opii form the patient's best medicine. After four or five days, if there be much pain in the part, the bandage may be raised to examine the wound ; and, if necessary, a corner of the lint may be lifted up to give vent to any matter that may have formed, but this must be done with great circumspection. If, however, adhesion will not take place, then, the lint being removed, simple dressings may be substituted ; or, if inflammation runs high, poultices may be applied to the wound, and leeches to the limb ; but, as soon as the inflammation is lessened, the poultices should be removed. Sometimes in a few weeks the wound heals, with little suppuration ; in other cases, exfoliation retards the cure ; and the degree of motion that remains will bear a relation to the quantity of suppuration and ulceration. Three months is, under the most favourable circumstances, the least period that must elapse before the patient can walk with crutches ; and according to the extent of the injury, of course, the period will become protracted.

It occasionally has been found necessary, to enable the surgeon more readily to reduce the fractured bone, to saw off the extremity ; a practice which Sir Astley Cooper considers may occasionally be adviseable, but on which he remarks, ' It is not my intention, however, to advocate either mode of treatment to the exclusion of the other, but to state the reasons which may be justly assigned for the occasional adoption of either.' (p. 302.) Our opinion is certainly, upon the whole, favourable to this practice, in conformity with the following reasons which Sir Astley has stated :—1st, it removes the difficulty in reduction ; 2dly, if the bone be broken obliquely, by removing the point, it rests without difficulty upon the astragalus ; 3dly, it diminishes the spasmodic contractions of the muscles ; 4thly, it renders the ulcerative process much less tedious ; and, consequently, 5thly, the constitutional irritation is much lessened. These are the principal, but not the whole of the arguments adduced in favour of removing the extremity of the fractured bone, and against which only two objections have been urged : one is, that the limb becomes somewhat shorter, but which our author does not consider of great weight, and we agree with him entirely ; and the other consideration is, that the joint becomes necessarily ankylosed, the truth of which is very doubtful ; and, indeed, Sir Astley mentions two cases in which this did not happen : and, even if it should, the motion of the tarsal bones becomes so much increased as to be a substitute for that of the ankle.

ARTICLE IX.

1. *Saggio Clinico sull' Iodio, e sulle differenti sue Combinazioni e Preparazioni Farmaceutiche, &c. i. e. Clinical Essay on Iodine, and its different Combinations and Pharmaceutical Preparations; from Results obtained in the Clinical School of Padua, in 1820-1821.* By PROFESSOR BRERA. Octavo, pp. 106. Padua, 1822.
2. *Observations on the remarkable Effects of Iodine in Bronchocele and Scrophula: being a Translation of three Memoirs published by J. R. COINDET, M.D. of Geneva.* Octavo, pp. 32. London, 1821. Translated by J. R. JOHNSON, M.D.

[From the London Medico-Chirurgical Journal and Review.]

BEING thoroughly convinced that it is not to the discovery of new remedies, but to the improved application of those already known, through the increase of pathological knowledge, that we are to look for any important advancement of therapeutics, we are accustomed to hear the frequent announcement of fresh accessions to the materia medica, with perfect tranquillity; and if we occasionally avail ourselves of such in our practice, it is rather in compliance with fashion than from a conviction of their superiority, much less of their exclusive power to fulfil any important indication in the treatment of diseases. Indeed, we are well convinced, that modern medicine has derived infinitely more precious benefits from many physiological and pathological discoveries, of little notoriety and less pretensions—contained probably in some few unostentatious paragraphs, than from all the multifarious additions, rejections, and revivals, which have characterized our pharmacology during the last fifty years. Still it is neither liberal nor philosophical to reject unheard the claims of these new candidates for a place in the store-house of health; nor is it just to declare that all those which have been heard and tried are either useless or unnecessary. The great majority of such novelties unquestionably are so; yet it is but fair to admit that some few of these (for example, colchicum, croton, cubebs, prussic acid,) are at least deserving a place among the list of substances possessed of analogous powers. Each and all of these, it is true, we expect to live long enough to see consigned, like the other articles of present fashion, to a temporary oblivion, until resuscitated to gratify the unquenchable appetite of novelty, with the bag-wigs, red heels, hoops, or trunk-hose of our ancestors; still we feel that it is our duty, as ministers of health,

and still more as medical annalysts, to make ourselves, and also our readers, acquainted with them as they respectively present themselves before us; and to hear and judge their claims and pretensions to our regard, be they great or small. It is on this principle that we have, in former numbers of our Journal, devoted some portion of our pages to the medicines above-mentioned: and in the present article we intend to introduce to our readers another new agent, that comes before us with as high pretensions, and probably with powers as great, as any of its recent precursors. This new medicine is IODINE, which has now been somewhat more than two years known to the profession, but which has hitherto obtained from us only a very brief and imperfect notice.—(Vol. II. p. 322.)

The simple substance, Iodine, was discovered in the soda derived from the incineration of certain marine vegetables, by Mons. Courtois, in the year 1813. Several of its properties were first investigated by M. Clement; but it is principally to Sir H. Davy and Gay-Lussac that we are indebted for our knowledge of the chemical habitudes of Iodine. For the history of this discovery, and the subsequent development of the various relations of this substance we must refer to the 88th, 89th, 92d, and 93d vols. of the *Annales de Chimie*, and to the various scientific journals published in this country since the period of its discovery.

The first experiments on the living body with this new agent, were made by Majendie, who was led to conclude that it was not poisonous; but subsequent experiments of Orfila on animals completely establish its great virulence, in certain doses, and justified its classification among the corrosive poisons. It is to Dr Coindet of Geneva, however, that we are entirely indebted for the introduction of iodine into medicine. This gentleman reflecting on the benefits derived from burnt sponge, from time immemorial, in the cure of bronchocele,* and on the more recent discovery of similar virtues in the preparations of the common seaweed (*fucus vesiculosus*;) and on the fact that iodine is common to these and other marine productions; was led by analogy to suspect that it was to *it* that the influence of these substances in curing bronchocele was to be attributed. As he lived in the

* We are informed by Professor Brera that there is preserved in the library of St. Mark, in Venice, a copy of the works of Van Helmont, full of marginal annotations in the hand writing of our famous countryman Locke, among which is the following formula recommended for the cure of goitre:—

R. Spungiae marinæ in carbonum combustæ uncias tres ossium sæpiæ ustorum, piperis longi, zinziberis, pyretri, gallarum, salis gemmæ, calcis testorum avorum—*ana unciam unam*. Terantur omnia simul in pulverem fin. cujus uncia semis. liquat. deglutitur paulatim *decescente luna*.

midst of a population very subject to this complaint, he had an immediate opportunity of putting his conjecture to the test of experiment, and was speedily gratified by obtaining the most decisive proofs of the efficacy of the new remedy. The result of his first trials were published by Dr Coindet in July 1820, in a memoir printed in the *Bibliothèque Universelle*; and this was afterwards followed by two others. These memoirs were translated into English by Dr J. R. Johnson, and published in the form of a small pamphlet, in the winter of 1821. In his first memoir Dr C. informs us that under the use of iodine a vast number of cases of brouchocele have been cured in a space of from six to ten weeks, and in such a way as to leave no trace of their existence; but that some of the tumours that appear goitrous resist the action of this remedy under every form of prescription; and that others are only dissipated partially, but so as to leave neither inconvenience nor deformity. He states iodine to be a most active emenagogue; and concludes by expressing his conviction 'of its becoming, under skilful hands, one of the most powerful remedies with which modern chemistry has enriched the *materia medica*.' In his second memoir, the author protests against the unjust clamour that appears to have been raised against the new remedy by the public in Geneva on the score of its dangerous effects on the living system; attributing such ill effects as may have been witnessed by others, to the incautious, indiscriminate, and popular use of it, and repeating his former opinions, strengthened by additional experience, of its great efficacy and (when properly administered) perfect safety. He here states that the neutral salt formed by the hydriodic acid and potass to which some pure iodine has been added (*ioduretted hydriodate of potass*) is the preparation most easy to manage, and is the one almost exclusively used by him. In this memoir the author enters somewhat more fully upon the effect of iodine on the animal economy, and gives some account of the symptoms developed by its continued use, or the *saturation* of the body with it, in which respect (as we shall see hereafter) it resembles mercury and arsenic. He repeats his belief that the new remedy will be found useful in amenorrhœa and other chronic diseases of the uterus; and states his having found it very successful in the cure of indolent scrophulous tumours of the glands in the neck. In his third memoir Dr Coindet gives an account of his trials with the iodine rubbed in *externally* with lard, and states his having treated twenty-two cases of goitre in this manner, and cured more than half of these in from four to six weeks. He was led to employ the remedy externally in hopes that it would not be found to occasion the disagreeable effects occasionally resulting

from its internal use, and which he seems to think owing to its local action on the mucous membrane of the stomach and bowels; and he considers that experience justified his hopes, as he says that this method 'presents a sure and easy mode of employing this powerful remedy, exempt from those objections made to its internal exhibition.' In this memoir he states his further experience of the iodine in enlarged scrophulous glands, and that his success has exceeded his most sanguine expectations. He suggests the probable benefit of a combination of this medicine with mercury in syphilitic complaints complicated with scrophula; and of the simple remedy in ovarian affections, from the analogy some of these bear to the disease of the thyroid gland.

Since the publication of Dr Coindet's memoirs, iodine has been employed by many practitioners of eminence, as for instance, by Dr Decarro of Vienna, Formey of Berlin, Majendie and Gimelle of Paris, Sacco and Omodei of Milan, Fenolio of Turin, and lastly, by the distinguished author of the *Clinical Essay* whose title is placed at the head of this article. In the hands of all of these it has been most successful in the cure of bronchocele, and has been considered by some of them as a valuable medicine in other diseases. In this country, we believe it has not had a very ample trial. We mentioned in a former number of this Journal that it had been used in one case by Dr Kennedy of Glasgow, without success; but we learn from some communications in the *Medical and Physical Journal* for August and October 1822, that it has been used with great success in the case of goitrous affections common in the elevated parts of Sussex and Surry. In one instance a comparative trial of the sponge lozenges and tincture of iodine was made by a very judicious and well informed practitioner, Mr Austin of Haslemere, and the result was in favour of the superior efficacy of the latter. In the part of the country just mentioned (Haslemere) we have the means of knowing that bronchocele prevails to a surprising extent, affecting almost every female (and scarcely any males) among the labouring classes. In these cases the burnt sponge lozenges (prepared by Shepherd of Fleet Street) are considered by the resident medical gentlemen as of almost specific efficacy, if persevered in for a sufficient length of time, and are not found to be productive of any ill effects.

Mr Austin, we are informed, is now engaged in giving a full trial to the iodine; and we have every reason to expect from him a judicious administration of the remedy, and a faithful history of its effects.

It was with the knowledge of the results obtained from the employment of this remedy in France, Switzerland, and Germa-

ny, that Brera determined to give it a full trial in the Clinical School of Padua in the year 1821; and in the small volume before us he has submitted to the profession the fruits of his experience. Although the author entitles this a *Clinical* Essay, and commences with a detail of cases, yet he takes occasion, in the course of his memoir, to give a more connected and comprehensive view of the general medical relations of iodine than is to be found in any other work; and as we think these details will prove much more interesting than the cases, we shall reverse the order of his Essay, and give an account of these general matters first. In doing this, as our object will be to submit to our readers an epitome of what is known respecting the new remedy, we shall neither restrict ourselves to the order nor to the substance of our author's treatise, but cull our materials from whatever other sources are accessible to us.

I. *Chemical History of Iodine.* For a complete account of this we must refer to the sources formerly mentioned, and to the work before us. We shall only here observe that iodine is a simple substance, of characters analogous to those of oxygen, chlorine, &c. solid at the ordinary temperature of the atmosphere, but volatile at a moderate degree of heat, under the form of beautiful *violet-coloured* fumes, from which it has derived its name. It is very sparingly soluble in water, but much more so in alcohol and æther. It is not inflammable. It forms acids when combined with hydrogen, oxygen, and chlorine, which are respectively named—the *hydriodic*—the *iodic*, and the *chloriodic* acids; and it unites with many of the metals forming *iodurets*. Its acids form salts with the alkalies, earths, and metals; of which, and also of the pharmaceutical preparations derived from these, a very complete catalogue is given in Brera's memoir.

II. *Pharmacology.* We have already stated Dr Coindet's opinion that the ill effects occasionally found to follow its internal use would be obviated by its external application. Brera, however, informs us that further experience has proved the fallacy of this notion, and assures us that it can be employed internally with equal safety, and with greater effect, except in such cases as require its topical agency. The following are the formulæ most recommended by Professor Brera.

1. *Tincture of Iodine.* Made by dissolving 48 grs. of pure iodine in an ounce of alcohol (at 35.) This is the preparation most frequently used at first by Dr Coindet, who, as well as Brera, recommends it being used *fresh*, as it is liable to decomposition in a few days. The dose is from five to twenty drops for adults, three times a day. Twenty drops contain about one grain of iodine.

2. *Pills of Iodine*, made by forming one grain of iodine into two pills, with elder-rob and liquorice powder—one to be taken morning and evening.

3. *Iodine Ointment*, made by rubbing up a dram of pure iodine with an ounce of lard, or half a dram of hydriodate of potass with an ounce and a half of lard; the former in the quantity of a scruple, the latter about the size of a filbert, rubbed on the part.

4. *Solution of Hydriodate of Potass*. This preparation is stated to be preferable to any of the foregoing, producing their good effects without their inconveniences. It is formed by dissolving 36 grains of the hydriodate in an ounce of distilled water, and is given in the same dose as the tincture.

5. *Solution of the Ioduretted Hydriodate of Potass*, formed by dissolving 36 grains of the hydriodate and ten grains of pure iodine in ten drams of water. This is said to be a still more efficacious preparation than the preceding, and requires to be given in small doses, viz. five or six drops, three times a day, to begin with.

The following precautions are to be attended to during the administration of iodine:—not to combine it with substances likely to decompose it, and not to give it when the stomach is loaded, but in the morning, a couple of hours before or after dinner, and in the evening. Our author farther recommends the occasional suspension of the medicine, on account of the sometimes sudden supervention of unpleasant effects from it, and to give a dose of magnesia on the day of its suspension, with the view of clearing the primæ viæ. The liquid preparations may be given in any vehicle. Coindet usually employed syrup and water.

III. *Effects of Iodine on the Living Body.*

A. *On Animals*. We have already observed that both Majendie and Orfila, on the first discovery of iodine, made experiment of its effects on animals. The following are the results derived from the trials of the latter on dogs.

1. Introduced into the stomach in small quantity, it acts as a gentle stimulant, and excites vomiting.

2. In the dose of a dram it invariably destroys the dogs to which it has been administered, (the œsophagus being tied,) producing ulceration of the mucous membrane.

3. In the dose of two or three drams it produces similar effects in the animals whose œsophagus has not been tied, provided they have not vomited for some hours after its ingestion.

4. It is not fatal when applied externally.

5. It seems to act on the human body in the same manner as on animals.

6. It ought to be classed among the corrosive poisons.

B. *On Man.* When iodine is cautiously and gradually introduced into the system, it affects it in a general manner, analogous to that of mercury, but very different in the consequences. The first, and what may be called the *salutary* effects of iodine, are an increase of appetite and of the strength of the pulse; whenever these are produced we must watch with the greatest care that these salutary limits are not exceeded, and the pernicious consequences of an over saturation of the system induced. The complete impregnation of the system is indicated by the change of the above-mentioned increased action of the pulse into decided frequency and quickness—by a sense of heat and irritation of the fauces—pain of the orbits or eye-balls, with obscured vision—pain of the internal ears and gums, (with occasional salivation,) headache, restlessness, loss of sleep, with swelling and pain of the diseased organs, (e. g. thyroid and other glands,) and an increase of appetite sometimes to a degree of voracity. In some persons the submaxillary glands become painful and swollen, and a similar state of the mammæ, *with eventual diminution of their natural volume*, takes place in some females. When given from the first in an over-dose, iodine produces a strong burning sensation in the fauces, which frequently extends down the œsophagus to the stomach and whole intestinal canal. In a still higher degree of saturation (or *iodization*, as the author calls it) of the system, to the above-mentioned symptoms succeed very considerable emaciation even in the space of a few days, excruciating pains in the orbits and eyes, with great defect of vision, and similar pains in the diseased parts; the strength vanishes; neuralgic pains are experienced in the stomach, chest, bowels, &c. the sleep entirely fails, and there is obstinate palpitation of the heart, with tremors, convulsions, or palsy of the extremities; to the excessive appetite succeeds complete anorexia, and the factitious disease finally terminates life, in a short time, by universal inflammation of the nervous and vascular systems, (*profonde angio-itis e neuritidi.*)

Upon the appearance of the milder class of symptoms above-mentioned, the immediate suspension of the medicine (which ought always to be done) sometimes is found sufficient to put a stop to them in a few days. For allaying these deleterious effects, rigorous regimen, copious mucilaginous

drinks, and the tepid bath, are recommended; and where the topical affection of the goitre, or other tumors, runs high, fomentations, poultices, leeches, &c. are prescribed; and general bleeding is advised where there exists a high phlogistic state of the whole system.

As these symptoms sometimes show themselves all at once, we ought to be cautious in not too hastily increasing the dose in cases wherein no obvious effects are produced. After the bad symptoms are allayed, the medicine is to be repeated with the same precautions as in the case of mercury and arsenic.

IV. *Medical Effects—or Effects on Disease.* From the preceding history of the effects of iodine on the living system, it must be admitted to be a powerful agent; and the statements formerly made of its efficacy in the cure of bronchocele, prove its potency to be available in the hands of medical men. Of its precise mode of acting on the living system, more especially in the cure of disease, we are hardly well assured. Dr Coindet says,

‘Iodine is a stimulant; it gives tone to the stomach and excites appetite; it neither acts upon the bowels nor kidneys; produces no perspiration, but exercises its action upon the generative system, especially the uterus. If given in a certain dose, and continued for sometime, it is one of the most active emenagogues with which I am acquainted; it is, perhaps, from this sympathetic action that it so frequently cures the goitre.’—*First Mem. p. 12.* Again—‘The experience of two years upon more than two hundred patients, has proved to me, that this remedy is one of the most energetic stimulants we know of the lymphatic system; and the variety of diseases in which I have employed it, (such as goitre, scrophula, enlarged glands of the breast, certain affections of the uterus, some cases of dropsy, &c.) is only apparent, since the whole of these diseases are only lesions of the same system.’—*Third Mem. p. 31.*

Professor Brera sums up his opinions respecting the new agent in the following terms:—

‘Iodine, then, is, on many accounts, entitled to be classed among the *heroic* remedies, and to obtain a place by the side of mercury. Like mercury, it maintains a permanent action on the system for a considerable time after its administration has been suspended. Powerfully exciting the nervous system, it accelerates the action of the heart and arteries, and restores the functions of the sanguiferous and organic systems when preternaturally affected. It thus produces appetite, fattens the lean, and emaciates the robust. (!) Determining a particular action on the thyroid gland and uterus, it removes the morbid

enlargements of the former, promotes scanty, and lessens excessive, menstruation, and even diminishes the size of the mam-mæ. This last mentioned fact, taken in conjunction with its undoubted efficacy in removing goitre, gives us reason to hope that this medicine may be found beneficial in the cure of organic enlargements of the ovaries and uterus.'—*Saggio*, p. 83.

He afterwards adds, that iodine produces its remedial effects without exciting any purgative, diuretic, or diaphoretic action; and that it has no effect on the thyroid gland and uterine functions, when in a *sound* condition.

Many of these sanguine anticipations of the wonders worked, or hereafter to be worked, by iodine, we have no manner of doubt will be disappointed, and are, in truth, little justified by the facts adduced by their very promulgators. Of the great powers of iodine in the cure of bronchocele, we think, we cannot, from the evidence before us, legitimately doubt; and the establishment of this single fact is sufficient, in our minds, to entitle the remedy to the greatest consideration. So rarely, indeed, are we presented, in the practice of medicine, with agents of specific powers, on whose efficacy, in the removal of disease, we can calculate with any thing like certainty,—and so frequently are we left in doubt, even in our most successful cases, whether it was our prescriptions or the spontaneous agency of Nature's restorative powers, that produced the benefit,—that it invigorates, at once, our confidence in medicine, and our zeal in the practice of it, when we fall upon a remedy on which we can pretty confidently rely, even, although the sphere of its operation be confined to a single form of disease. If, then, it be true, that *iodine*, whether in the form of burnt sponge, or kelp, or under a more scientific aspect, is capable of removing a considerable proportion of goitrous tumours, even of many years' standing, we shall be willing to give it a high place in the *materia medica*, even if its powers should be entirely confined to this class of affections.

In the memoir before us, Professor Brera does not detail his experience of the efficacy of iodine in bronchocele, because, he says, the results obtained by him have been similar to those of Coindet and others. His principal object appears to have been, to try its powers in some other forms of disease, in which it had been proposed or employed by its discoverer, or suggested, to himself, by analogy. The clinical observations detailed by him, are thirteen cases of his own, and four communicated by one of his friends, and consist of one case of (supposed) incipient *tabes mesenterica*; two cases of vicarious hæmoptysis, and one of vicarious hæmorrhage from the eye; one

of chronic dysentery; one, laryngeal phthisis; three of amenorrhœa, and one of dysmenorrhœa; two of swelled submaxillary glands; two of bronchocele; two of scrophulous ophthalmia; and one of scrophulous glandular tumours.

In reviewing the history of these cases, as given by our author, we are compelled to declare, that, in as great a proportion as two-thirds of the whole, there is no proof whatever of the complaints being removed by the iodine; and, that in several, it seems infinitely more probable, that the other means employed at the same time effected the cure. Indeed, we are extremely surprized to find these cases adduced by a practitioner of Professor Brera's experience, as instances of cures effected by the iodine. In the cases of bronchocele, however, and other enlargements of glands, the effect of the remedy appears to have been sufficiently conspicuous; and, in conjunction with Dr Coindet's experience, fully justify its employment, and with considerable prospect of benefit, in indolent glandular tumours in strumous subjects. We have already devoted too much of our space to permit us to give even an outline of these cases. We must, therefore, refer to the work itself.

In conclusion, we would beg leave to repeat our opinion, that in iodine we have a valuable addition to the materia medica; that its efficacy in the cure of bronchocele, appears to exceed that of every other medicine hitherto employed; that its power in dissipating other chronic glandular tumors seems very probable; and, that it is deserving of a trial in other diseases, more especially in such as bear any analogy to those in which it has been proved to be beneficial.* At the same time, we must recur to the declarations with which we set out, and which can never be too much and too frequently impressed upon the minds of the younger members of the profession,—that it is only by the *study of DISEASES* that professional eminence or usefulness can be obtained,—that a constant hunting after, and great confidence in, medicines of supposed specific powers, is an unfailing indication of a weak understanding,—and, finally, that, according to the expression of the great Boërhaave, *there really is no remedy 'nisi quod TEMPESTIVO usu fiat tale.'*

* Since writing the above, Dr Baron's 'Illustration' has come to hand, and in it we find strong reasons for hoping that, in iodine, we possess a medicine of no mean power in resolving tubercles in the lungs, and tubercular affections in other parts of the body. We refer our readers to the analysis of Dr Baron's work in another part of this number for further particulars.

Analysis of Foreign Medical Journals,

WITH SELECTIONS.

Archives Générales de Médecine ; Journal Publié par une Société de Médecins, composée de membres de l'académie royale de médecine, de Professeurs, de médecins et de chirurgiens des hôpitaux civils et militaires, etc. Tome 1^{er}. Janvier, 1823.

THIS first number of the *Archives Générales de Médecine*, has been politely sent us by the Editors, with a view to an exchange for our own Journal. It will give us much pleasure to reciprocate the attention thus bestowed on us by the distinguished men who manage the editorial department of the *Archives*. That this new work promises to be a very valuable one, may be safely inferred from a reference to the editors for the present year. These are MM. Béclard, Bousquet, Breschet, Coutanceau, Desormeaux, Esquirol, Georget, Gasent, Orfila, Raige-Delorme and Rayer.

The introductory article to this number or volume of the *Archives*, is an extract from a discourse pronounced by M. Laennec, at the opening of his course of Lectures at the Royal College of France. This lecture contains a rapid survey of medical theories, or rather medical systems; and the precise object of the author would seem to be, to point out the best course for the study of medicine, and the treatment of disease.

Under the head *Memoirs*, and *Observations*, the first article is, *Remarks on the signs given by authors on legal medicine for the purpose of discovering whether a dead body found suspended, was hung during life, or not till after death.* By M. ESQUIROL.

This is a very interesting paper. It contains a case of suicide by hanging which occurred in an insane female. There was no suspicion in this case, that the hanging was accomplished by any other individual than the woman herself. The body examined some hours after death did not exhibit any of the signs first announced by Mich. Alberti, of Halle, and copied from him by all succeeding writers, as demonstrative of the fact that the hanging was done *before death*. Other cases are given of a similar import.

'These facts' says M. Equirol, 'appear to me conclusive, and prove that, if the body of an individual which is hanging or is strangled, is freed from the fatal cord, immediately or even many hours after death, we shall not find the marks on the dead body, indicated by authors, as proving suspension before death. These phenomena either have not had place, or are dissipated.' p. 14.

'The preceding facts,' observes M. E. in the close of his paper, 'and the considerations which they have given rise, present the following conclusions.'

1. 'That the signs offered by legal physicians as teaching whether the body of a person found hanging, was hung before or after death, are not as positive as has been contended for.'

2. 'That echymosis round the neck is not a constant sign, and that it should be considered, as an equivocal sign of suspension before death.'

3. 'That the signs indicated by the same authors, are less rarely observed, now that assistance is not denied to suicides by submersion or strangulation, either from prejudice, or by the authority of law.'

4. 'Finally, that when a physician is called to visit a body found hung, he should ascertain at what hour death happened, and how long the cord has been round the neck, two circumstances which modify the appearances, on which his judgment is to be founded.'

'The error into which very distinguished men have fallen, has been my sole motive in publishing these reflections on a question of legal medicine the most delicate and the most difficult. I shall not think them useless, if they do no more, than inspire a salutary caution in physicians in offering medical testimony in a court of law.' p. 16.

Cases of spontaneous perforations of the small intestine in acute diseases; with reflections. By M. LOUIS, D.—M.—P.

Memoir on Hernia of the perineum; by Antoine Scarpa, Emeritus-Professor, and Director of the University T. & R. of Pavia &c. Translated from the Italian. By C. P. OLLIVIER, (of Angers,) communicated by M. A. Béclard.

These two papers occupy many pages, and are very valuable. It was our intention to have given at this time a translation at length of some of the cases they contain. We have omitted to do so, and mean hereafter to give a condensed account of the whole of the articles.

The next department in the *Archives* is entitled *extracts and analyses*.

It contains a review of the Treatise of Broussias on *Physiology applied to Pathology*. Of, *L'art du Boyaudier*; by A. G. Labarraque,—and an analysis of the *Transactions of the Royal Society of London*, for the year 1821.

ACCESSORY SCIENCES, *Chemistry and Pharmacy*.

In this article a rapid sketch is given of the principal discoveries which have recently been made in chemistry and pharmacy. This article is by M. Orfila. A few translations follow.

‘*M. Lassaigne* has proved that pure albumen is not coagulated by the voltaic pill, as has been believed; that if common albumen is coagulated by this instrument, it is owing to its containing common salt, the acid of which being attracted towards the positive or vitreous pole, unites with the albumen and precipitates it. The same chemist has discovered that the salivary calculi found in herbivorous animals, contain a considerable portion of carbonate of lime, a little phosphate of lime and water, and a certain quantity of animal matter, whilst those which are formed in man are composed only of phosphate of lime, and animal matter.’

‘The synovia in man is analogous to that of the ox. It has furnished to *MM. Lassaigne et Boissel* much albumen, a fatty matter, an animal matter soluble in water, soda, muriate of potass and soda, phosphate and carbonate of lime; it contains no uric acid, as Fourcroy had supposed it to do.’

‘*M. Dubunfaut* announces that river water is less useful in the fermentation of grains, than well water; this last, containing much carbonate of lime, has carbonic acid in excess, which prevents the spirituous liquor becoming acid; thus we obtain much more alcohol with the same quantity of grains, when instead of river water, well water is employed.’

‘*M. Faguer* points out a new process for obtaining castor oil, with greater ease, in greater quantity, and of a superior quality, than heretofore. Reduce a pound of the seeds of the ricinus freed from the skins to a paste with four ounces of alcohol of 36°, and at a common temperature; press it through ticking, distil until nearly all the alcohol has passed over; wash the residue in many waters, place the oil freed from the water over a gentle fire to remove all moisture; remove it from the fire, and put it on filters placed in a stone heated to 30°, it filters easily and a very beautiful and very sweet oil is the product.’

MM. Payen et Chevallier have found in the violet alcoholic

tincture of the petals of the *malva sylvestris*, a reagent so sensible in detecting alkalies, that an aqueous solution containing but 0,000005 of potass is changed by it to a green.'

'*M. Théodore de Saussure* has published an important memoir on vegetation, in which he persists in thinking notwithstanding the assertion to the contrary of Ingenhouz and *M. Berard*, that green fruits have on the air, in the sun-shine and in the dark, the same effect as the leaves. Their actions differ only in intensity, that of the last being the greatest.'

'In a very interesting work on the composition of alkaline sulphurets, *M. Berzelius* has established, 1. That livers of sulphur regarded at present as alkaline or earthy sulphurets, are combinations of sulphur with the metallic base (radical metallique) of the alkali or earth. 2. That when the sub-carbonate of potass is melted with sulphur, to obtain common liver of sulphur, one fourth of the potass goes to form sulphate of potass, and the other three fourths are converted into the sulphuret of potassium. We arrive at these results by decomposing the sulphate of potass by hydrogen and sulphur; the quantity of oxygen absorbed by these two substances is such, that they must contain not only that which the sulphuric acid, but that also which the potass contained.'

EXTRACTS FROM JOURNALS.

'*Amputation of the Lower Jaw.*—*J. L.* aged 68 years, robust, had, in 1819, on his lower lip, a small pimple which he pulled off. Ulceration followed, not extensive, but accompanied by swelling of the neighbouring parts, which gradually increased until it occupied the whole of the under lip. At the end of three years, despairing of success from the means employed, he entered the hospital *St. Eloy* the 23d of May 1822. Almost the whole lower lip from one commissure to the other was destroyed; what remained of it was swollen, bloated, unequal, irregular, like the surface of a cauliflower, hard and turned out, bleeding on the slightest touch. The swelling extended to the inferior edge of the chin. The patient experienced in the diseased part, pains both pungent and lancinating. The advance of the disease was such as to leave no hope of cure from any treatment. The patient appeared troubled with but little sensibility, and was willing to submit to any thing which gave a promise of cure. I operated, says *M. Lallemand*, Professor of the Medical Faculty of *Montpellier*, the 27th May, after the following manner:

'The diseased part was circumscribed by two semi-elliptical incisions, beginning on the upper lip, five or six lines from the

commissure, and ending towards the middle of the thyroid cartilage; they were quite convex above, and almost straight below. As the tumour was moveable, I wished to know if the periosteum was healthy, but I found it full, thick, lardaceous. The bone was also diseased. I abandoned at once the idea of saving the jaw. I dissected the jaw as far as the anterior edge of the masseter muscles on each side. In this place the periosteum appeared perfectly sound. I detached the bone at the upper part on the outside and below, and I sawed it a little obliquely from without inwards, and from before backward, beginning on the left side; I then detached the muscles and the soft parts which are attached to the internal surface of the jaw bone, and sawed the right side in the same manner. I tied successively the labial, the submaxillary, the ranular arteries, and some other branches which bled. I delayed dressing the wound a quarter of an hour after all bleeding had ceased. I united the inferior angle of the wound by three needles, and the twisted suture. The branches of the jaw, and the remaining soft parts were drawn together by adhesive straps, having filled the intervening space with lint. The whole was kept in place by compresses and bandage.

‘A little while after the operation, the points of the suture filled up the parts comprised between the larynx and the base of the tongue, and the muscles of this organ, which are inserted in the jaw having been detached, the patient experienced such difficulty of respiration, that he tore off the bandage. Great hemorrhage followed. The wound was opened to find the vessels and secure them. We removed the needles. These efforts were fruitless. Compression was impracticable. Successive applications of the actual cautery were next made, upon the bleeding surface. The bleeding, which continued after cauterisation, was checked by the application of agaric some minutes. The dressing consisted now of adhesive straps, and loose bandages.

‘Upon the subsidence of the inflammatory and febrile symptoms, the wound healed rapidly. Various circumstances conspired to retard the cure, and occasioned an apprehension that the disease was about to recur. The action of the masseter and pterigoid muscles not being sufficiently antagonized by that of the lower muscles, two carious and unequal molar teeth in the superior jaw, buried themselves in the soft parts which covered the inferior. There followed successively on each side, a large deep, and painful ulceration, with hard inverted edges, occupying the gums, and the mucous membrane of the jaw. These ulcers healed after removing the teeth.

‘At a still later period, there occurred at the extremity of each

portion of the jaw, many little abscesses, which left as many fistulous points, with projecting fungus; examination of these fistulæ discovered the bone to be naked. Some days after it was moveable, and many fragments were extracted, which formed, on each side, a complete circle, on which the marks of the saw were visible. The wound now cicatrized, fifty days after the operation. But there remained between the two extremities of the jaw a space of about two inches in extent, through which the tongue passes, and the saliva flows. The articulation of sound is bad. M. Lallement provided a chin of silver, which by the aid of sponge contained in the projecting part, retains the saliva, which the patient can press out by pressing it with the tongue. By means of this apparatus also, the patient can make himself understood.—*Journ. Univers. des Scienc. Med.*

Dr Smith's operation for removal of the cyst in a case of ovarian dropsy; and Mathæis' observations on the sulphate of quinine, morphine, &c.; Professor Enlargen's observations on the structure of the tendons, follow.

The next department is headed *Variétés*, and contains an account of the *Sittings* of some learned Societies. The last department is devoted to Bibliography. M.

287. LONDON MEDICAL AND PHYSICAL JOURNAL, JAN. 1823.

The first 64 pages of this number are devoted to an Historical Essay on the State of the Medical Sciences during the six preceding months. It is a very condensed abstract from foreign and domestic Journals of the more important papers relating to the various departments of medical science. It is arranged under the following heads, viz.:—ANATOMY, *natural, comparative, and morbid*; PHYSIOLOGY, PATHOLOGY, MEDICINE, THERAPEUTICS and MATERIA MEDICA, SURGERY, MIDWIFERY, CHEMISTRY and BOTANY. The remainder of the number is devoted to Critical Analysis of English and Foreign Medical Literature, Medical and Scientific Bibliography, statistical medicine, and obituary.

The following is extracted from Dr Webster's Report of Diseases. Dr W. has published a paper in the 286 number of the Medical and Physical, on hooping cough; in which he says he has been led to entertain the opinion that the actual seat of the complaint may be in the head, and that the affection of the respiratory organs is only to be considered as a secondary effect, or as an effort of nature to relieve herself by expanding the lungs to an unusual degree, which may in some measure diminish the fulness and congestion of the head he had been speaking of.

‘A great number of cases of hooping-cough have been met with during the above period, and many of them were of long standing. The treatment recommended in the last number of this Journal has been put in practice very extensively, and with the most decided benefit. One case may be mentioned, in which the method therein spoken of was tried. The child was two years and three months old, and had been ill of hooping-cough for upwards of four weeks. When first seen, the mother said it had from three to four severe fits in an hour; it was then feverish, and much exhausted by the disease. Three leeches were applied to the forehead, and a dose of calomel, rhubarb, and nitre, was ordered to be given every night at bed-time. On the third day after, the cough was better, and hooping much less severe. On the 7th, had only hooped five times the preceding twenty-four hours, and was otherwise much better. Another leech was applied to the forehead, and a purging mixture, with syrup of squills, prescribed at the last visit, was continued. On the fourteenth day after admission, the report was, “Does not hoop at all; bowels open; and only a little feverish at night.”—R. Pulv. Cort. Cinchonæ, Sodæ Carbonatis, \bar{a} \bar{a} gr. iij. ter die, inter alia.—A week afterwards, the child, being quite well, was discharged.

‘Many other corroborating examples might be adduced, if necessary, from the eighty-one cases which occurred, showing the utility of this treatment; but it will suffice to remark, that leeches to the forehead was generally the chief, often the only, remedy depended upon, especially in the early stages of the disease.’

We observe in No. 280, the number for March, a paper by Dr Webster, filled with cases in support of his views respecting hooping-cough.

288. FEB. 1823.

[Original Communications, &c. &c.]

The first article in this department is ‘Two cases of Cæsarean operation, one of which proved successful. By J. U. Van Bur-en.’ The obstacle to delivery in the first case was an exostosis which projected from the symphysis pubis towards the sacrum; the sacrum appears at the same time to have projected unusually forwards. The distance between the pubis and sacrum was not two inches. These changes had been induced in the bones of the pelvis by recent disease in the bones, for the woman had been delivered of five children without instruments. The operation was performed in the usual way. On the fifth day febrile excitement was manifested, which common remedies promptly

used soon subdued. She did well till the eighth day, when her bedstead fell down with much violence and gave her a severe shock. Spasms with locked-jaw followed, and rapidly increased in violence. Laudanum in drachm and two drachm doses in burnt brandy was given, and applied externally. The symptoms soon subsided. On the nineteenth day the patient was able to walk about the yard. This case was a negro slave, of Tortola, and it occurred in May. The operation was done about 60 hours from the beginning of labour.

In the second case (a slave,) the obstacle to delivery was an extensive warty excrescence which firmly united the labia nearly through their whole extent, admitting the introduction of but one finger into the vagina. The operation was done 48 hours after commencement of labour. She died on the sixth day after the operation.

The second article is a continuation of Mr Bampffield's *Essay on Curvatures and distortions of the Spine, and some other morbid derangements to which it is subject*. A case was extracted from the first part of Mr B.'s Essay into our last number. The subjects of the present paper are the *Causes and consequences of Distortions of the Spine*. Mr Pott taught, and the doctrine, says Mr B., has held its ground since his time, that scrofula was the only cause of carious vertebræ, and hence of distortion, since distortion, as it was believed, could only occur from caries. Mr Bampffield teaches a different doctrine; and thinks for practical benefit, that curvatures of the spine might be divided into two species,—curvatures with caries, and curvatures without caries, of which the latter, he remarks, is most frequent.

He divides the causes into remote and proximate. The first are various injuries which may be inflicted on the spinal column, together with scrofula, syphilis, rheumatism, rachitis, molities ossium, &c. The last, that morbid state of the vertebræ, the intervertebral substance, and perhaps of the ligaments which those causes may produce. On this last topic Mr B. remarks,

‘It has been already observed, that the immediate causes of permanent distortion should be sought for in some morbid alteration or destruction of the structural parts of the vertebral column. This alteration or destruction of structure is effected by “ulcerative absorption,” or caries, of the vertebræ; by “progressive absorption” of the vertebræ, without caries or formation of pus; by an irregular growth of bone, combined with progressive absorption; or by either an ulcerative or progressive absorption of the intervertebral cartilages. To effect permanent distortion, this alteration of structure must produce such disproportions in the mechanism of the spine, as not only occasion a

deflection from the upright attitude, but are incompatible with its retaining it, and render it impossible to place or restore the spinal column, at once or at will, to its spinal line or natural axis, either by the powers of volition, or by any mechanical power.

‘Ulcerative absorption (or caries) of the vertebræ and intervertebral cartilages has been certainly produced by scrofula, tumors, syphilis, and very rarely by rheumatic and simple inflammation. Progressive absorption of those parts is produced by tumors in a direct manner, and indirectly by contusions, sprains, rheumatism, bad habits as to posture during the growth of bones, &c. that conduce to this effect by occasioning the body to be for a long time deflected from the spinal line, and thus subjecting particular parts of the vertebral structure to long-continued and undue pressure, which is a very powerful means of exciting absorption. When an increased growth of bone on part of the vertebræ inclines the spinal column from its straight* line, it occasions increased pressure, and consequent absorption, on the opposite side. Progressive absorption, by a law of nature, frequently takes place in old age, without any extrinsic or evident cause.’

‘Caries or ulcerative absorption of the bodies or processes of the vertebræ and cartilages does not necessarily produce curvature, projection, or any distortion of the spine: for, as these latter effects are secondary and mechanical, their production must depend upon *the direction* the ulcerative absorption takes in the destruction of the bony and cartilaginous organization; for, if the ulcerative absorption merely takes away portions of the vertebræ in the perpendicular direction, enough may remain to support the spinal column in its natural attitude, and to preserve its spinal line; but, should the *horizontal* surfaces of the bodies of the vertebræ, with their intervertebral substances, be destroyed or absorbed, as so frequently happens, then the spinal column cannot be placed or supported in the upright attitude; and if a weight, as of the head and other parts superior to the absorbed portions, be thrown on the spine, it must be deflected from the spinal line; and, should it fall forwards, the spinal processes must be elevated and protrude behind.’

It is not proposed to follow Mr Bamfield through the ingenious speculations which follow immediately the above extract. And in place of attempting an analysis of the Essay as continued in the next number of the Medical and Physical, we shall content ourselves with giving case IV. at length. Its object is to eluci-

* Although the word *straight* is applied to the vertebræ, yet all know the spinal column is not naturally, and strictly speaking, straight.

date various points relative to absorption of the vertebræ, in a striking instance of excurvation of the spine.

Case IV. Miss Jane Archer, æt. seven, (56 Wild-street,) born of parents free from scrofula. Her father is subject to asthma. She is of a thin delicate form, but has no strumous appearance. She has been affected with excurvation of the dorsal vertebræ during the last five years and a half, which has gradually formed, but has increased very much since Christmas last to this period, (May 29th,) which rapid increase is attributed by the parents to another fall she received at that time, but is really owing to the principle above mentioned. The curvature embraces the twelve dorsal vertebræ, and forms a regular arc, whose chord line measures only four inches, three and a half lines! The spine, of course, forms a hump projecting behind, the scapulæ appear to be placed on the sides, the ribs are "flattened on their sides,"—that is, they do not describe their usual curve, and are elongated; the sternum projects, and is much raised and depressed by respiration. The lower portion of the second division of the sternum projects to a point, and the cartilago ensiformis is turned inwards, so that the whole sternum presents the form of a broken bow, as if broken at the point of union of the second division of the sternum with the xiphoid cartilage. She has not been entirely paralytic, but has been very weak, and unable to walk without placing her hands on her knees to support her body, and remove the weight from the spinal column. Her parents inform me, her muscular strength was much restored by the use of the vapour-bath three times a-week. She is still weak and thin, and her rest is interrupted by a pain about the posterior superior spinous process of the ileum. She is affected with dyspnœa and cough, and once suffered an attack of asthma. Her digestive organs perform their functions well, and she has no tightness or stricture across the epigastrium, usual in excurvations. On May 29th, 1822, after extending the spine and pressing gently on the projection, the compress, pad, and bandage were applied around the chest, without a shield, and the bandage was fixed by shoulder-straps. The apparatus and extension were renewed every other day. Extension was frequently employed by the parents. The patient observed the facial horizontal position.

*June 2d.—The measurement of the different derangements of the chest and spine was taken. The greatest projection of the

* The natural length of the twelve dorsal vertebræ in a girl of her age should be about seven or eight inches: it was hence very probable that some of the bodies of the vertebræ were wholly destroyed, and that a perfect recovery could not be promised.

central spinous process of the displaced dorsal vertebra beyond the spinal line of the lumbar, is three inches. The greatest projection of the same process beyond the spinal line of the last cervical, is one inch nine lines. The whole of the dorsal vertebræ constitute the segment of a circle, nearly equal to a semi-circle. The projection of the most protruding dorsal vertebra beyond the twelfth, is two and a half inches. The breadth of the chest from side to side, is six inches. Depth of the chest from the extreme sternal projection to the extreme dorsal, is eight and a half inches. Length of the body, is three feet two inches. The head falls in between the shoulders.

'June 4th.—Three spinous processes are nearly reduced to a straight line, and the sternum projects less. Used the vapour-bath.

'June 9th.—Four spinous processes nearly reduced to a level. Measured again. The greatest projection of the dorsal vertebræ beyond the axis or spinal line of the lumbar, two inches one quarter. The greatest projection of the same beyond the twelfth dorsal, is one inch seven lines. Breadth of the chest, is six and a half inches. Depth of the chest, seven and a half inches. She derives much support from the apparatus, and feels as "if she were going to pieces" when they are taken off for a short time.

'June 15th.—The general health has been good, and the patient went into the country for a few days.

'June 29th.—The general health is still good. Four spinous processes are on a level. The greatest projection of the dorsal vertebræ beyond the spinal line of the lumbar, is reduced to one inch seven lines. The greatest projection of the same beyond the spinal line of the seventh cervical, is only one inch five lines. Breadth of chest, seven inches one line. Depth of chest, seven inches five lines. Length of body, three feet two and a half inches.

'July 15th.—The general health is still good, although she has slight dyspnœa. The greatest projection of the dorsal vertebræ beyond the spinal canal of the first lumbar, is one inch two and a half lines. The greatest projection of the same beyond the spinal line of the seventh cervical, is one inch five lines. Depth of chest, seven inches three lines; breadth, seven inches. Length of body, three feet three inches, which was not increased during her life.

'August 4th.—The spinous processes of the eleventh and twelfth dorsal vertebræ have regained their natural situation. The greatest projection of the most prominent spinous process beyond that of the twelfth dorsal, is one inch. The greatest

projection of the same beyond the spinal line of the seventh cervical, is one inch three lines.

'August 31st.—The greatest projection of the most prominent spinous processes of the dorsal vertebræ, beyond that of the eleventh, now in situ, only seven lines. The greatest projection beyond that of the seventh cervical, one inch five lines. The length of the chord line of the arc, including the eleventh and twelfth dorsal, is now five inches one quarter. Depth of chest, seven inches; breadth of chest, seven inches five lines.

'During this period the sternum and anterior part of the chest had in a great degree recovered their natural shape, and the patient was no longer chicken-breasted. The ribs on the sides were also much more curved. The pain on the posterior part of the ilium soon disappeared, and did not return. The general health was very good, and she had improved in every respect, agreeably to the testimony of all. She paid a visit of some days to the country; and on her return, at the end of September, she was seized with a most untractable attack of asthma, of which she died early in October. Her father had firmness and philosophy enough to allow an examination after death, which presented the following appearances:

'The muscles of the back appeared to be stretched where they passed around the greatest convexity of the excurvation, and their volume in this situation was much diminished. The inter-spinous ligaments were tense. We took the liberty of sawing out, and bringing away, the greatest portion of the spine, with parts of the posterior ends of the ribs attached to it. On removing the spine, the lungs presented a mass more like dark coagulated blood than the parenchyma of the lungs, so much were they gorged. They adhered pretty generally to the costal pleura. The bodies of the seventh, eighth, ninth, tenth, and eleventh vertebræ, were entirely removed by absorption, and the superior and anterior portions of the body of the twelfth dorsal were also absorbed; while their processes remained, although altered in structure and curved. The seventh, eighth, ninth, tenth, and eleventh spinous processes are united by ankylosis. The posterior ends of the ribs are close to each other, and are attached to the anterior part of the transverse processes. The inferior part of the seventh rib is partly destroyed by the absorbents. The ligamentum anticum commune is in the same tense state as in health, except where the bodies of the vertebræ are destroyed: in this situation it is thickened and loose, and covers a small ætheromatous tumour, which it surprised us to find thus situated. Nature had begun to deposit ossific matter on the vertebral side of this ligament, and it was covered with fat towards

the abdomen. The engraving will convey a correct idea of the curvature* of the ten dorsal vertebræ removed; the extent of the outer line of curve being four inches seven lines; of the inner line, one inch three lines. The distance between the sixth dorsal vertebra and the remains of the twelfth dorsal, is only four lines!

‘The spinal canal and vertebræ were sawn through, in the presence of my friend Mr Copland Hutchison, and a professor of surgery from Berlin. The spinal canal and medulla canalis were preserved continuous, although both, in some parts, had their natural dimensions diminished, and both deviated from the natural spinal course, by being forced to take a circuitous one around the curvature. The spinal marrow and its membranes were merely covered by the spinous processes where the excursion is most prominent and convex. These processes do not form a thick defence, as, in one or two parts, they are not perfectly ankylosed, or united by bone. The diameter of the spinal canal in the dorsal vertebræ above where it is contracted, is six lines. The diameter, in its narrowest or contracted part, is four lines. The diameter of the canal in the lumbar vertebræ below the contracted part, is seven lines. The foramina for the passage of the nerves remain entire, although some appear diminished in size. On examining the bodies of the vertebræ after they are divided by the saw, we all agreed there was not the slightest appearance of caries, and that the bodies of the vertebræ had, in all probability, been destroyed by progressive absorption.—This specimen of diseased spine will be found in Mr Brooke’s museum.’

Art. III.—*On the use of Carbonate of Iron in Tic Douloureux.*

By Dr S. CRAWFORD, of Bath.

The carbonate of iron has acquired some reputation in the treatment of tic douloureux. This case is communicated to Mr B. Hutchinson, who has the merit of first using this article in this distressing complaint. The patient, a lady, was in her 69th year. The following is her own account of her symptoms and sufferings.

‘At first the spasm felt as if a red-hot knitting needle ran through my nose and eyes to the top of the head,—as if my brain was on fire. I could not bear any thing to touch that side of my

* While living, the muscles prevented the upper dorsal vertebræ from inclining so much forwards.

face; and even a hair touch would rouse the spasm. My nose and my eye streamed with water, and I even feared to wipe it away. For two nights I had difficulty to get my night-cap on; nor, during this long period of torture, could I blow my nose, but kept a handkerchief to pat it gently.'

She took the arsenical solution in moderate doses, and the disease left her. A slight attack two years after, again yielded soon to the arsenical solution. Seven years from this the disease recurred. The arsenic now failed in relieving her, and disordered her stomach. Carbonate of iron in simple doses was given, and in three weeks the disorder left her and has not returned. Mr C.'s paper contains the following case, communicated by Dr Davis.

'My patient, Mrs. H—, æt. 65, has the usual symptoms of tic douloureux on the right side of the face. A careful examination of the teeth caused no suspicion of the pain being occasioned by caries within the mouth. She was ordered ten grains of Dover's powder every night at bed-time, and extract of hemlock during the day. This plan commenced on the 19th of May, 1820, and was continued until the 20th of the following month; when, being no better, she began to take two scruples of the carbonate of iron, with five grains of the compound cinnamon powder, morning and noon. At the end of a fortnight, I had the pleasure to hear that she was relieved. She was advised to continue the use of the remedy a week longer; which, I believe, she did. Having seen her about two months ago, I am enabled to add, that she has enjoyed good health ever since she left off taking the powders.'

The next article is on the same subject, communicated by Mr Anthony Todd Thompson. Two cases of tic douloureux are given in this paper, one of them very severe, in which the carbonate of iron in large doses, seems to have done much good in combination with extract of belladonna, calomel, antimony, &c.

Art. V. *Case of Tetanus cured by the Oleum Terebinthinæ.*

By B. HUTCHINSON, Esq.

Aged 30. Epileptic. 'On making my daily visit to the prison in the beginning of December, I was informed by one of the turnkeys that Beedham was unable to open his jaws, and that they had been immovably closed since my visit on the preceding day. On entering Beedham's ward, I found the turnkey's account correct, with the addition of a sense of stiffness and pain in the back part of the neck, a considerable spasmodic rigidity of the

whole of the muscles of the neck and back, accompanied with pain and uneasiness at the lower part of the tongue, and with some interruption to the facility of swallowing his saliva. He was affected with considerable pain at the lower extremity of the sternum, extending into the back, materially deranging the functions of respiration, from the spasmodic contractions of the diaphragm, and of the muscles subservient to that important office; symptoms strongly threatening that peculiar aspect of the disease termed Prosthotonos. His pulse was 120; his countenance denoting the greatest distress and anxiety; and my prognosis most inauspicious.

‘I immediately took from his arm about thirty ounces of blood; and, one of the molares of the lower jaw being fortunately wanting, I introduced into his mouth three pills, containing fifteen grains of calomel and two grains of opium. A brisk purging enema, containing one ounce of the oil of turpentine, was administered; and a large blister was applied between his shoulders. On visiting my patient after the lapse of eight hours, the symptoms, instead of showing the least mitigation, were aggravated by an evident increase of muscular rigidity, spasm, and pain. The flexors of the head and trunk became so strongly affected as to balance the extensors, and to keep the head and trunk straight and rigidly extended, incapable of being moved in any way. The enema had produced no effect on the bowels. I immediately resolved upon giving the oleum terebinthinæ a fair trial in this very distressing situation, and directed half an ounce to be given every two hours in gruel.

‘On the following morning I paid an early visit to my patient, who received me with a cheerful countenance, opening and extending his mouth to show me that he had completely regained the proper command over these muscles. On inquiry, I found that he had taken two ounces of the turpentine; and that, after the second half ounce had been taken, the spasms began to relax; his pains, consequently, began to abate, and his bowels to be very freely evacuated; and since that period there has not been the least disposition to any return of tetanus. He has suffered several paroxysms of epilepsy, of a much milder character.’

‘Southwell; December 1822.’

Art. VII.—*A Case of Poisoning by Arsenic.* By J. W. EDWARDS, Esq. Surgeon.

‘E. T., of a firm and robust habit, ætat. 35, and advanced seven months in her pregnancy, was prevailed on, by the father of her infant, to take what he had procured for her, which

(from the best information that could be collected) consisted of an ounce of white arsenic.* This she mixed in half a pint of hot water, and stirred the mixture well with a spoon; she then drank about the half of it, saying that she could not drink the whole, as her 'stomach went against it.' In about eight minutes after the poison had been swallowed, it began to affect her with excessive sickness, pains, and other alarming symptoms. Having been sent for, about eight o'clock in the morning, August 31st, I found her much exhausted from violent retching and vomiting. She complained of very great cold in the extremities, unquenchable thirst, spasmodic pains in the bowels, especially towards the epigastric region; the mouth was much parched; the eyes bloated, and the face evidently swollen; and she was also very restless, showing great anxiety and distress of mind. The pulse at that time 120.

'I lost no time in administering the *carbonate of magnesia* as an antidote to the poison, and followed the same plan as recommended by Mr HUME, of Long-Acre, who, I believe, first mentioned it as a proper remedy. I likewise adopted the same prescription, which I find in the London Medical and Physical Journal for November, 1821,—namely,

R. *Magnesiae Carbonatis*, ʒj.

Vini Opii, ʒjss.

Sacchari albi, ʒss.

Aquæ distillatæ, lbj. *Misce fiat mistura.*

'Of this I ordered a wine-glassful to be taken every fifteen minutes, shaking the bottle; and that this should be accompanied with a free use of mucilaginous drinks, such as gruel, barley-water, broths, &c. taken in small but frequent draughts. I also directed the proper means to keep the extremities warm.

'At noon, the same day, I again saw the patient. The vomiting was less frequent, and not so violent; the skin was very hot; she complained of intense thirst, a burning pain in the stomach, and great soreness on pressure; pains of the head and sides, and great restlessness. Pulse 136, and strong.—*Venesectione brachio ad uncias viginti. Repetatur mistura magnesiæ carbonatis.* As there was an evident remission of the more urgent symptoms, I ordered the mixture to be taken every half hour only, but still in the same dose.

In the evening, about seven o'clock, I found her more calm. She complained of great soreness of the throat and mouth; the vomiting and retching were less urgent; she felt pain over the

* My own experiments to prove the identity of this poison were fully confirmed by Mr HUME, to whom I sent a very small portion for analysis.

region of the stomach, and towards the right side. Pulse 106. —Habeat Olei Ricini, ℥j. statim. Applicentur hirudines xii. lateri dolenti. Perstat in usu misturæ.

September 1st.—I saw her at eight o'clock A.M. She had slept about three hours in the course of the night; the vomiting had abated; the burning sensation of the throat and stomach had materially diminished, and the bowels had been scantily purged. Pulse 104.

R. Olei Ricini, ℥jss.

Mucilaginis Acaciæ, ℥vj. Misce ut fiat mistura cujus sumat cochlearia duo majora tertiis horis donec alvus satis soluta fuerit; postea continuetur mistura, omittando vinum opii.

September 2d.—She complained much of soreness in the throat and stomach; the bowels are open; the skin is moist; she had been faint several times during the night; her pulse 98, and small.—Ordered the magnesia mixture, as last prescribed, to be continued every two hours; and small quantities of weak broth to be taken frequently.

September 3d.—The patient continues to improve, and advance, although slowly, towards convalescence. I prescribed a milk-diet; the mixture to be taken three or four times a-day; and that the bowels should be kept moderately open.

Art. VIII.—Cases of Poisoning by Opium.

'Case I.—A young man, at Shepton Mallet, in this county, swallowed two ounces of laudanum. A surgeon was immediately sent for to the patient, who administered nearly twenty grains of tartrate of antimony and elaterium, with a large portion of citric acid. This remedy acted instantly on the stomach and bowels, and the patient was recovered from the narcotic influence of the poison.

Case II.—Mr J. W., æt. sixty-five, of robust constitution, addicted to dram and beer drinking, and to the smoking and chewing of tobacco, swallowed, in a state of intoxication, nearly two ounces of laudanum. I saw him in bed, within half an hour after the drug had been in the stomach. Although intoxicated, he was able to state what he had done, and where the phial, which had contained the laudanum, was to be found. He assisted in dressing himself, and, by the aid of a friend, walked into an adjoining room.

One scruple of sulphate of zinc, dissolved in half a pint of warm water, was administered, which, in the course of ten minutes was repeated, irritating the fauces with a feather. The

patient was directed to walk up and down the room between two persons, and was by no means particularly drowsy. A large portion of citric acid, dissolved in warm water, was repeatedly given; and, besides the two scruples of sulphate of zinc, ten grains of sulphate of copper were given, in two doses; as also, in two doses, twenty-four grains of tartrate of antimony, all dissolved in copious draughts of warm water, irritating the fauces with a probang; but without exciting vomiting. On asking the patient several times whether he felt sick, he as often replied, 'Never was sick in my life.' Meanwhile he became quite sober, and related where he had bought the drug,—how long he had had it,—what conversation passed between himself and the druggist. He also entered into conversation respecting his worldly affairs,—conversed with shrewdness and humour,—and, finally, after a lapse of five hours, would not allow persons to assist him in walking about the room, as 'he could do so himself;' adding, 'there was nothing the matter with him.'

Conceiving that Mr W. might have wasted the greater part of the laudanum while conveying it to his lips, or purposely thrown part of it away, and finding him apparently unaffected by opium, or indeed any thing else, from eleven o'clock P.M. to four A.M., I left him.

A little before nine o'clock, I was sent for, when the patient was very drowsy; his breathing was slightly affected; his skin cold; his face of a purple hue; and pulse rather feeble. As so many attempts at exciting and provoking vomiting had failed, little or no advantage could be expected from them now that the opium had remained ten hours in the system. Cold water was at this time frequently dashed upon the head. Citric acid, in warm water, was again frequently given; as also mustard, sharpened with acetic acid and mixed with warm water; but without exciting the energy of the nervous system.

By this time a great number of persons had collected in front of Mr W.'s house, and the house itself became unavoidably so thronged, as to make the case one of great public notoriety; I therefore requested that every medical practitioner in the town might be sent for, three of whom (all who were in Frome at the moment,) came. We administered three or four strong aloetic lavemens, without producing any alvine discharge. Cloths dipped into boiling water were applied to the abdomen and back, instead of common vesicatories; which, with urtication, were scarcely felt by the patient, notwithstanding he had sufficient control over the voluntary powers to void urine, at his own desire. Shortly after this, the pulse became much more

feeble and indistinct; the skin quite cold; the breathing less perceptible; the speech and the powers of mind gradually vanished; and, finally, he died like one in a trance:—he fell, without an effort, into the sleep of death!

289. MARCH, 1823.

A case from Mr Bampffield's Essay which stands as the first article in this number, is given in another place.

Art. VI. *Case of Acute Rheumatism translated to the heart.*
By A. ARMSTRONG, Esq.

The patient, a young man of slender form, was admitted to the hospital November 7th, with acute rheumatism. Active treatment was used. 9th, Symptoms a little milder, though still urgent. 10th, Complained first of cough. 11th, Cough more frequent accompanied with pain in the left side. 12th, Pulse strong and full to a degree never before noticed by the medical attendants. Bleeding to the extent of 40 ounces, and a perfect antiphlogistic course, were followed neither by syncope, nor hardly a perceptible difference in the pulse.

'On the 13th, he had passed another sleepless night, from the violence of the pain in his arms. His cough, and the pain in the left side, which he referred exactly to the situation of the heart, had also increased. His bowels were again disposed to be confined, and the arterial action was but little diminished. A purging enema was thrown up, and he continued the use of the mixture, to which forty drops of the tincture of digitalis was added. He previously took another cathartic.

'At the evening visit, the disease was evidently gaining ground. He complained more of the pain of the left side, and his pulse was as hard and full as ever, vibrating most powerfully under the finger. Thirty-six leeches were applied to the left side, with instructions to encourage the bleeding; and the dose of the digitalis was increased.

'On the 14th, he was considered rather better, and hopes were entertained that there was still a chance of his recovery, as the pains in the arms were milder, and he complained less of the pain in his side. These hopes were, however, of short duration: he was seized with fainting-fits whenever his head was raised from the pillow, and in one of them he expired, at two o'clock P.M. on the sixth day of the disease.

'*Dissection.*—On opening the cavity of the chest, the imme-

diate cause of his death, as we had conjectured, was clearly ascertained to be inflammation of the heart; that viscus was considerably enlarged in size, and the surface every where covered with a layer of coagulable lymph, so loosely adhering as to yield to light pressure with the finger. The liquor pericardii was more abundant than usual, and of a turbid reddish colour. The inflammation had not extended to the lungs; and all the other viscera, both in the abdomen and the thorax, were apparently healthy.'

Art. VII. *Remarks on Abortion.* By H. W. WARD, Esq.

Mr Ward with Dr D. Stewart believes that the death of the foetus is frequently owing to irritation of the bowels, and that to prevent it is to remove this irritation by opium used either as a suppository, or given by the mouth. This irritation is manifested by diarrhoea, and it is to the diarrhoea Mr W. attributes abortion. He gives a case in which abortion had occurred three successive times. He was called in at the fourth. It was the fifth month of pregnancy, and it was at this period the other abortions had occurred. No pains were present which seemed to warrant any idea of labour. She was suffering much from diarrhoea which had now existed four days. An opiate mixture was given, but without checking the discharges and in eight hours a dead foetus was expelled.

He was called again to the same patient with similar symptoms, and in the fifth month of pregnancy. An oleaginous mixture was given, and afterwards suppositories of opium. These produced no relief, and large and repeated doses of laudanum were now given. The bowel complaint soon yielded and the woman went her full time, and was delivered of a living child. Cases are next alluded to, in which all ordinary exertions will be foiled. These cases may be dependent on syphilitic taint, inaptness in the uterus to the development which the growth of its contents requires, or in some state of the uterine vessels which prevents a due supply of blood to the foetus.

There are one or two circumstances in Mr W.'s case which deserve a moments consideration. It appears abortion occurred with great regularity as to the period of pregnancy, the fifth month, and that it was attended and as he thinks was produced by diarrhoea. Now how are we to explain this periodical occurrence of diarrhoea with its attendant irritation of the bowels. Mr W. seems to think that this was an idiopathic affection, and that to relieve this was to prevent the abortion. Is it not however a little probable, that this diarrhoea was an

effect of something peculiar to the uterus or period of pregnancy, and occurred along with the other precursors and ordinary attendants of abortion? The reasons for believing this are, the fact that instances of habitual abortion, and abortions recurring with a remarkable regularity of time, are constantly met with, where such a state of bowels is not at all concerned in the occurrence, where the bowels on the contrary are, and have been for some time very torpid, or even very regular, in which the uterus contracts without any apparent cause, and where every known means has been used to prevent premature delivery.

The foetuses in Mr W.'s case, are stated to have been dead, and from this fact being particularly noticed, they probably had marks of having been dead for some days. May not the irritation of the bowels which occurred in this case, or in some of the abortions, be attributed to the irritation of the uterine contents, they having lost their life; or to simple disturbance in the uterine function? If so the increased action of the bowels was probably one of the effects of the causes existing in the uterus, especially as it existed along with those incipient contractions of the womb which such causes ordinarily excite, and which were ultimately to expel its contents.

These remarks are not made because the practice in these cases does not seem a very good one, but because we can see nothing in the case to warrant the belief that the affection of the bowels was the primary one. The circumstance of the period, and regularity of recurrence of the diarrhoea, and the decided evidence of disturbance in the uterine function, go to show that the diarrhoea was induced through the direct agency of the gravid womb, that the bowels sympathized with its disturbed functions, and that the effect of the opium was to check this disturbance, and at the same time to quiet the bowels. In the successful case, the means were promptly employed, and in this the foetus was not dead, when the precursors of labour manifested themselves. From this fact it is highly probable, that the womb was disposed to expel its contents, without the agency of the death of the foetus, and that death took place merely as a consequence of disturbed uterine function.

Experiments on the Cerebellum and Cerebrum.

1st. M. Flourens removed the cerebellum in successive layers from a pigeon. At the taking away of the first slice, the animal experienced but little weakness and hesitation in its motions. At the middle layers, its walk became unsteady and

agitated, altogether like that of a drunken person ; soon it could not walk without the assistance of its wings. The sections being continued, the animal lost altogether the faculty of walking ; its feet were no longer sufficient to support it, and it had to sustain itself on its tail and wings : it often attempted to walk or fly, but always without success. If it was pushed forward, it tumbled over its head ; if backwards, it rolled on its tail. The sections were carried farther : the animal then lost the faculty of keeping itself up on its wings and its tail ; it tumbled continually, without being able to stop in any fixed position, or it finally rested flat on its back or belly. In other respects, it saw and heard very well ; its air was lively, its head erect, and spirited.

‘2d. M. Flourens removed from a pigeon the right cerebral lobe : the animal lost instantly the sight of the left eye ; but the contractility of the iris of that eye continued unchanged. There was also a marked feebleness in the right side of its body. With the exception of these two circumstances, the animal was well : it sustained itself, walked, ran, flew, saw with the other eye, understood, wished, felt as usual. The other lobe being removed, the sight of both eyes was instantly lost, but not the contractility of the iris. There was at first a very distinct general debility : otherwise, the animal held itself perfectly upright on its feet ; and, in whatever position they put it, it maintained its equilibrium. It walked, when pushed ; it flew, when tossed into the air ; but, left to itself, it remained plunged as it were in a continual stupor. It never moved, except in proportion as it was irritated ; it gave no sign of volition. Memory, vision, hearing, will, all its perceptions, were extinguished. There is none of his numerous experiments which M. Flourens has not repeated on each of the four classes of vertebrated animals ; and he has always indicated the shades of greater or less depth which characterize these classes.—(*Journal of Science.*)

Cases of Puerperal Convulsions. By Dr ALPHONSE MENARD.

‘A young woman, between nineteen and twenty years of age, of good constitution and very stout, in her first pregnancy, had been in labour four days, when I was called to attend her. On my arrival, she was in dreadful convulsions affecting the whole body ; the features, particularly, were horribly distorted ; the tongue clenched between her jaws, foaming at the mouth, &c. She remained in this state nearly a quarter of an hour, which was succeeded by an universal torpor of the like duration,

when she became sensible, but without the slightest recollection of what had happened. It was then about one in the afternoon. Finding the pulse full and rapid, I took a large quantity of blood from the arm, and prescribed a mixture containing the vitriolic æther and ammonia. The orifice of the uterus was rigid, hot, and half dilated; and the head of the child presenting appeared to be very large. She had no flooding nor discharge of any kind. The abdomen exhibited two distinct convex surfaces; one, produced by the distended uterus, occupied the space extending from the epigastrium to the umbilical cicatrix; the other, immediately above the pubis, caused by the bladder, which was distended with urine. The labour-pains, which at first were strong, for the last hour had scarcely been sensible. After having fulfilled the first indication by bleeding, it remained to draw off the water, and hasten the delivery, as the distention of the womb appeared to be the cause of the convulsions. I attempted every method of introducing the catheter, without success. I then turned all my attention to the os uteri, but was interrupted by another fit, which however was not of so long duration as the preceding one. A small wooden cylinder was inserted betwixt the teeth. Without entering into particulars, I shall merely state, that the dilatation of the mouth of the uterus was exceedingly tedious and painful, during which time the patient had six attacks of similar fits, though not equal in duration: the contraction of the jaws, in one instance, was so strong, that two of the incisor teeth were broken. Venesection was repeated three times, and a warm bath administered, in which she could only remain half an hour. At midnight, during the last fit, I was able to introduce my hand into the uterus; during the succeeding collapse, I was enabled to empty the bladder, turn and extract a stout male child, which was dead. Its death, I suppose, happened about the time of the first convulsion; and, from the contraction of the extremities (the inferior ones particularly,) I presume it had sympathised with the mother,—a circumstance which struck the assistants as well as myself. Another circumstance deserving notice is, that the lochial discharge did not take place till twelve hours after the accouchement. The subject of this observation experienced no accident after the expulsion of the foetus and secundines, and enjoys perfect health at present.

* * * *

‘ During my residence in Paris, in 1820, I was called to attend a lady, who had been in labour two days at the time I was sent for, and affected by convulsions similar to those described above. Every symptom indicated a general plethora, and I immediate-

ly let blood to a large extent. The pains recurred within a quarter of an hour after the depletion, and the left thigh of the patient (to use her own expression) was benumbed from excess of pain. On examination, I found that the os uteri was concealed in the left iliac fossa, with the head of the child pressing strongly above it: this I considered as the cause of the mischief. I proceeded to lay the patient on the right side, and, pressing the abdomen with one hand, used the other in dilating and drawing the orifice of the uterus to its proper situation; after which, with considerable difficulty I seized the child by the legs, and effected the delivery. The fits in this case also recurred at irregular intervals. The following day, the patient had no recollection of having been delivered, was without fever, and recovered rapidly; since which time she has had a child (now living,) without any accident. In this, as well as in every other case I have observed, the child was born dead; and the contraction of the extremities and features evidently denote its having participated in the affection of the mother. The woman attacked by convulsions has no warning of the return of paroxysm, but I have noticed its approach by particular signs: thus, in the first case, the patient experienced an intense thirst previous to the first three attacks, and the four last were preceded by feeble but repeated pains. In the last case, a convulsive action of the eyeball, and a tetanic affection of the wrist, was perceptible. Lastly, the pulse, in all cases I have seen, gave the most certain indication: at the commencement it was full and quick, then gradually got weaker during the paroxysm, still retaining its rapidity; at the termination it gradually diminished, till almost imperceptible, then progressively regained its vigour as the patient recovered her faculties.'—(*Journal Complémentaire*, Janvier 1823.)

Population of Russia, and Instances of Longevity. (From the Edinburgh Philosophical Journal, No. XV.

'In the year 1817, the number of births in Russia is stated at 786,810 boys, and 711,796 girls; the number of deaths at 423,092 males, and 405,469 females, of whom 208,954 died under five years of age. The increase of population was 670,045. The number of individuals who had attained the age of

60 years was	68,723	125 years was	21
70 —	38,765	130 —	17
80 —	16,175	135 —	1
90 —	2,108	140 —	1
100 —	783		
115 —	83		
120 —	51		

Total, 126,738; which is about 1-7th part of the deaths.'

290. APRIL, 1823.

Communication between the Stomach and Bladder.—‘The experiments made in England by DARWIN, and more recently by WOLLASTON, BRANDE, and MARCET, tended to prove that different substances introduced into the stomach were found in the urine, without having passed by the medium of the lymphatics or blood-vessels. M. FODERA has resumed these experiments; and he has given to them an ingenious modification, which enabled him to discover some phenomena which had escaped the English physiologists. He introduced into the bladder a catheter, with a cork, having tied the penis that the urine might not flow by the sides of the instrument. He laid bare the œsophagus at the anterior part of the neck, and injected into the stomach a solution containing some grains of the hydrocyanate of potass, with iron. This being done, he frequently uncorked the sound, and received the urine which flowed from it on paper. He placed a drop of solution of sulphate of iron on the paper, and added to it another of hydrochloric acid, to make the colour disappear. In one experiment, the prussiate was detected in the urine ten minutes after its injection into the stomach; and, in another, five minutes thereafter. The animals were instantly opened. The salt was found in the serum of the blood drawn from the thoracic portion of the inferior vena cava; in the right and left cavities of the heart, in the aorta, the thoracic duct, the mesenteric ganglions, the kidneys, the joints, and the mucous membrane of the bronchiæ.’—(*Journal de Physiologie*, Janvier, 1823.)

Transudation.—‘The following experiments prove that, in the dead body at least, transudation of fluids may take place at the same time from within outwards, and from without inwards, through the parietes of the intestines and of blood-vessels. M. FODERA filled a portion of the intestine of a rabbit with a solution of prussiate of potass, and plunged it into a solution of the hydrochlorate of lime: he introduced into it another portion of hydrochloric acid, and surrounded it with sulphuric acid; finally, he placed a bladder filled with fluid, coloured with turnsol, in a solution of galls. Some time after he found in the interior of these, respectively, hydrochlorate of lime, sulphuric acid, and gallic acid, recognized by the nitrate of silver, hydrochlorate of barytes, and sulphate of iron; and, in the liquids in which he had immersed them, prussiate of potass, hydrochloric acid, and turnsol, recognized by the sulphate of copper, nitrate of silver, and by the colour of the infusion of galls being rendered bluish by the potass.

‘Similar phenomena were witnessed on the living body; and the rapidity of the transudation was found to be much increased by the application of galvanism. For this purpose, the ingenious experimentalist injected into the bladder, or into a portion of intestine, in a living rabbit, a solution of the prussiate of potass, which was made to communicate with a copper wire: he placed on the exterior surface a piece of linen, moistened with a solution of the sulphate of iron, which communicated with an iron wire: these wires were brought into contact with those of the battery. If the galvanic current be directed from without inwards, by making the iron wire communicate with the positive pole, and the copper with the negative, the tissues of the organs become imbibed with Prussian blue; but, if the current be changed, the colour is manifested on the linen.’—(*Journal de Physiologie*, Janvier 1823.

Bones of a Fetus voided by the Rectum.—‘Catherine Damiano, of healthy constitution, after two favourable accouchements, became pregnant for the third time. This conception was marked by all the usual symptoms, the enlargement being inclined towards the left iliac region. The existence of the fœtus was demonstrated by its movements: these were sometimes interrupted, and often very sensible in this region. At this time she was taken with pains, which were believed to be those of labour, and which ended in an evacuation from the uterus, of a liquid slightly tinged with blood. The milk-fever supervened; the mammæ were filled, and the secretion flowed from them in abundance. These occurrences took place in November; and, from December till August following, she menstruated regularly: at this period the evacuation ceased, without any apparent cause. She had a continual discharge from the vagina, of a whitish-yellow fluid, and experienced various inconveniences. She continued to be tormented by very acute pain, corresponding to the anterior part of the tumour and the eminence of the sacrum, and by continual diarrhœa, with tenesmus. Towards the middle of January of the second year, she suffered more than ever, and was seized with continued fever, with intervals of cold followed by burning heat, which was felt particularly towards the sacrum: she then evacuated by the rectum some bones, naked, deprived of cartilage, and without any sensible figure. The excretion of these bones was accompanied by that of some purulent sanguineous matters. In examining the parts carefully, M. ROAGNA discovered that these bones had made a route for themselves, by means of an opening in the rectum, about six lines in length, and about twenty one lines from the anus. This evacuation greatly relieved the patient; but the pains returned with vio-

lence, and at several times, until all the bones were voided, which took place in the month of July, the third year after the conception.'—(*Revue Medicale*, Janvier 1823.)

Chronic Ulcers.—'La Charité, the principal hospital at Berlin, has long been celebrated for the cure of chronic ulcers of the legs, and the method adopted seems chiefly to consist in restricted diet. The plan is as follows:—On admission into the hospital, the patient is purged, and put into a bath; he is then placed in a ward assigned for such cases, and confined to very spare diet, while cold applications are made use of to the sore. The bath, and a purgative of calomel and jalap, are repeated twice a-week. By this treatment the ulcers soon acquire a better appearance, and, even if very foul and extensive, they generally heal in a month or six weeks. Great attention is paid to the state of the pulse, which is examined every day, because it affords an indication by which to judge whether the treatment is to be carried on or not: if it be reduced to 35 or 40, the starving system is discontinued, and somewhat better diet allowed, until the pulse becomes natural again; as, otherwise, blindness, ringing of the ears, giddiness, fainting, &c. are liable to be produced. If attention is paid to this, no other danger is to be apprehended in the progress of the cure. Another advantage of this plan is, that it is exceedingly cheap.'—(*Rust's Mag. der Heilkunde*, 9 b.)

Means of breaking down Calculi in the Bladder.—'An instrument has been invented, and it is said brought to perfection, in Paris, by M. AMUSAT, the use of which is to break down calculi in the bladder, and render the fragments so small that they may be voided as gravel. The instrument consists of pincers, which are confined in a tube not larger than a sound, until introduced into the bladder. They are then opened, the stone is seized with facility, and, by moving the handles in a particular manner, is soon reduced to powder. In a few seconds, a stone the size of a nut is broken with facility. It appears, however, that as yet the trial has been made only on a *dead* body: it still remains to be learned what the result will be in a living one.'—(*Journal of Science*.)

Hydrocyanic Acid.—'Some chemists, as LAMPADUC and BRUGNATELLI, formerly announced that the hydrocyanic acid might be obtained from prussiate of potass; but they did not sufficiently determine the manner in which it might be rendered of uniform strength. M. GEA PESSENA, a chemist at Milan, has employed himself in removing this deficiency. The following is his pro-

cess, which must be economical, if the result corresponds with the account of the inventor. He introduces eighteen parts of prussiate of potass and iron, reduced to a very fine powder, into a small tubulated glass retort, taking care not to soil the neck or side. He adapts to this vessel a very small tubulated balloon, furnished with a conducting tube, which he plunges into the first flask, containing a little distilled water. The rest of the apparatus is contrived so as to avoid absorption. This being done, he pours into the retort a cold mixture, of nine parts of concentrated sulphuric acid and twelve parts of water. The tube of the retort is to be hermetically secured; the whole left at rest for twelve hours, at the commencement of which the balloon is to be surrounded with ice; the neck of the retort is to be constantly cooled with wet cloths; afterwards the materials are to be heated with some burning charcoal, and preserved in this state until the streaks, which are observed in the neck of the retort, become more rare, and until a blue vapour arises, which threatens to pass into the receiver. At this point, the heat is immediately discontinued; the apparatus is allowed to cool entirely, and the contents of the receiver are poured into a proper vessel. The hydrocyanic acid obtained by this process has a strong and penetrating odour; the specific gravity is from 0.898 to 0.900, at the temperature of 13 or 14 of Reaumur; it likewise possesses, according to M. Pessena, all the properties of the purest prussic acid.'—(*Giornale de Fisica*, 1822.) M.

INTELLIGENCE.

OFFICERS OF THE MASSACHUSETTS MEDICAL SOCIETY—1823.

AT the annual meeting of the fellows of the MASSACHUSETTS MEDICAL SOCIETY, holden at the Medical College, in Boston, June 4, 1823, the following gentlemen were chosen officers for the ensuing year, viz. :—

JOHN BROOKS, M.D. *President.*

JAMES JACKSON, M.D. *Vice-President.*

JOHN DIXWELL, M.D. *Corresponding Secretary.*

JOHN GORHAM, M.D. *Recording Secretary.*

JACOB BIGELOW, M.D. *Treasurer.*

WALTER CHANNING, M.D. *Librarian.*

COUNSELLORS.

Suffolk.—Doctors Townsend, Welsh, Dexter, Spooner, Bul-
lard, Coffin, Dixwell, Jackson, Warren, Gorham, Randall, Shat-
tuck, Brown, Channing, Bigelow, Hayward.

Essex.—Doctors Holyoke, Fisher, Oliver, Treadwell, Pres-
cott, Gardner, Hazeltine, Bradstreet, Cleaveland.

Middlesex.—Doctors Brooks, Hurd, Bancroft, Thomas, Hey-
wood, Wyman, Chaplin, Bucklin, Walton.

Hampshire.—Doctors E. Dwight, Smith, Hooker, J. H. Flint,
Lathrop, A. T. Stone, S. W. Williams.

Berkshire.—Doctors Burbank, D. Collins, Rogers, Childs,
Tyler, Worthington.

Worcester.—Doctors Haskell, sen., Fiske, Green, Batchelder
Jr., Thurber, Holmes.

Norfolk.—Doctors Holbrook, Miller, J. Bartlett, Thaxter,
Bugbee.

Plymouth.—Doctors Orr, C. Otis, N. Hayward.

Bristol.—Doctors Billings, Leonard, Reed.

CENSORS.

Doctors John Dixwell
John G. Coffin
John C. Warren
James P. Chaplin
Rufus Wyman

*For the Society at large, and
the First Medical District.*

Doctors Oliver Fiske
John Green
Abraham Haskell, Jr.
John Homans
Edward Flint

*For the Second Medical Dis-
trict.*

Doctors Elihu Dwight
William Hooker
Jos. H. Flint
Stephen W. Williams
Daniel Collins

*For the Third Medical Dis-
trict.*

Doctors Asa Burbank
Benj. Rogers
John Delamatre
A. Perry

*For the Fourth Medical Dis-
trict.*

By order of the counsellors,

JOHN GORHAM, *Recording Secretary.*

CIRCULAR OF THE MEDICAL SCHOOL AT BOSTON.

THE Medical Faculty of Harvard University give notice, that their lectures at the Massachusetts Medical College in Boston will begin on the third Wednesday of November, and be continued daily until the usual termination of the course.

It is presumed that the means, now possessed by this school for promoting and facilitating the acquirement of medical knowledge in all its branches, are equal to those offered by any American college, and commensurate with the advances made by society in the other departments of useful learning. As auxiliary to the several courses of medical instruction, the school is amply provided with apparatus, collections, and opportunities for practical demonstration; which, if aided by industry on the part of the student, are calculated to afford him the same kind of information, as that for which the hospitals and seminaries of Europe are usually visited. These auxiliary advantages consist in a large and select medical library; a cabinet of a thousand anatomical preparations; an ample and well furnished chemical laboratory; a collection of specimens of the *materia medica*; a suit of models and specimens for illustrating the principles and operations of obstetrics; a course of recent dissections, both public by the professor, and private by the students themselves; and lastly, an opportunity of acquiring practically medical and surgical knowledge at the Massachusetts General Hospital.

The following courses of lectures begin and terminate at the periods which have been specified.

Anatomy and Surgery	by Dr Warren, Fee \$20
Chemistry	“ Dr Gorham “ 15
Midwifery and Medical Jurisprudence	“ Dr Channing “ 10
Materia Medica	“ Dr Bigelow “ 10
Theory and Practice of Physic	“ Dr Jackson “ 15

These constitute the regular course of medical instruction preparatory to a medical degree. Students, who choose, have the additional opportunity in the spring season to attend lectures at Cambridge on Mineralogy, Botany, Natural Philosophy, and Philosophy applied to the Arts, as well as on various departments of literature.

As the Massachusetts General Hospital has not been completed so as to be accessible to medical students, until within the two last seasons, it may be proper to give some account of the opportunity it affords for practical instruction to students during their residence in the city. The wards of the medical department have always furnished a succession of interesting cases, both acute and chronic, which have been under the care of the pro-

fessor of the theory and practice of physic. Regular clinical lectures during the winter are given upon these cases, and students are admitted to the patients, so far as to become experimentally conversant with the symptoms of their diseases, the progressive changes which take place, and the operation and influence of medicinal agents.

As is common in large establishments of the kind, many patients resort to the General Hospital to undergo surgical operations, rendered necessary by accident or disease. No other kind of institution affords equal opportunities for acquiring a practical acquaintance with operative surgery. Not only the operations themselves, but the treatment of the cases preparatory and consequent to the operation, and the progress and management of convalescence, may be here studied and observed. The superior conveniences which a well arranged hospital affords for the accommodation of the sick, renders this institution a resort, not only of the poorer class, among whom in a large city, accidents are of frequent occurrence; but of other individuals from a distance, who come with the expectation of relief from chronic maladies requiring surgical treatment.

The following is a record of surgical cases, and of operations performed in the Massachusetts Hospital, by the Professor of Anatomy and Surgery, during twenty months, from the opening of the building in September 1821 to June 1823.

1821.	Sept.	21.	Operation for Prolapsus ani.
	Oct.	18.	Lithotomy.
	"	23.	Operation for Popliteal Aneurism.
	"	25.	Operation for Fistula in ano.
	Nov.	10.	Fractured leg.
	Dec.	9.	Dislocation of the hip in the ischiatic notch.
1822.	January	6.	Fracture of the thigh.
	"	"	Compound fracture of the leg.
	"	30.	Removal of a portion of the tibia.
	Feb'y	5.	Amputation of the leg.
	"	19.	Operation for phymosis.
	"	"	Removal of diseased toes.
	March	9.	Fractured leg.
	April	22.	Compound comminuted fracture of leg.
	"	24.	Extirpation of tumour from the breast.
	June	8.	Comminuted fracture of the Os humeri.
	July	17.	Amputation of the breast.
	August	2.	Compound fracture of both patellæ.
	"	30.	Removal of foreign substance from the globe of the eye.
	Sept.	20.	Amputation of the breast.

	Oct.	12.	Extirpation of the parotid gland.
	"	"	Operation for prolapsus ani.
	"	23.	Operation for Fistula in ano.
	Nov.	23.	Operation for Cataract.
	"	28.	Operation for Necrosis.
	"	"	Removing tumour from the foot.
	Dec.	20.	Operation for artificial pupil.
1823.	Jan.	15.	Removing tumour from the side.
	Feb'y	5.	Removing fragments of rib.
	"	12.	Operation for cataract.
	"	18.	Operation for Inguinal aneurism, the iliac artery tied.
	"	"	Facial nerve divided for tic douloureux.
	"	25.	Operation for phymosis.
	"	"	Laying open a fistulous ulcer over the ribs.
	"	26.	Inferior maxillary nerve divided for tic douloureux.
	March	6.	Fractured leg.
	"	"	Operation for Cataract.
	April	4.	Operation for Cataract.
	"	29.	Operation for Cataract.
	May	26.	Operation for Necrosis.
	"	21.	Fracture of the thigh.
	"	26.	Operation for Cataract.
	June	9.	Operation for Fistula lachrymalis.
	"	11.	Operation for Cataract.
	"	"	Operation for Cataract.
	"	"	Operation for Eversion of eyelid.

The fee for attendance on the joint medical and surgical practice of the hospital is reduced to ten dollars.

Besides the practice of the hospital, opportunities frequently occur of witnessing the private practice of physicians, such as the condensed population of large cities is peculiarly calculated to afford, where the poorer class is numerous, and many of them the subjects of charitable institutions.

Board in the city may always be obtained at from three to four dollars per week. The medical class of the two last years has consisted of about eighty students.

Boston, June 1823.

LITERARY NOTICE.

WE are happy to inform our readers, that Messrs. *Wells and Lilly* have put to press Dr Goob's great work, the *STUDY OF MEDICINE*; together with *NOSOLOG*, by the same Author. The first volume of the *Study of Medicine* has nearly passed through the press.

Preparing for the press—A second edition of the *FLORULA BOSTONIENSIS*, or collection of the Plants of Boston and its vicinity. By *JACOB BIGELOW, M.D.* Greatly enlarged from the first edition.

The New-England Journal

OF

MEDICINE AND SURGERY.

Vol. XII.

OCTOBER, 1823.

No. IV.

Remarks upon the study of Pathology ; being part of an Address delivered before the Boylston Medical Society, November, 1821.
By JOHN WARE, M. D. President of the Society.

[Communicated for the New-England Journal of Medicine and Surgery.]

* * * * *

AFTER studying the causes of disease, and acquiring in this way a familiarity with the general principles of the science of Pathology, we come to disease itself, the phenomena which it exhibits, and by which it is known.

In the first place we may consider disease as affecting the different textures of which the system is composed, and producing different symptoms according to the *texture* affected ; and in the second place, as situated in the different organs into the composition of which these textures enter, and producing different symptoms according to the *function* of the *organ* affected.

The laws of disease, like the laws of health, have their peculiar modifications in each of the simple textures ; and it is of great importance in every case of disease to distinguish accurately those textures in which morbid processes are really going on, and to avoid ascribing them to those, which, though contiguous, do not partake in them. If we examine those organs which are compounded of several textures, we shall find a great difference in the severity and danger of their diseases, according to the texture affected. In the lungs, for example, a simple inflammation of its serous covering, though severe in degree, is a disease generally void of danger, and treated with ease. An inflammation of its mucous membrane alone, is not often more dangerous,

and is commonly removed without difficulty. A similar affection of the cellular texture, or the parenchymatous substance is of a graver character; whilst any combination of two or more of these affections, at the same time, becomes more dangerous and difficult to treat, in proportion to the degree of severity and complication of the symptoms. A thorough knowledge of the vital powers and relations of these different textures in health and disease, will be of immense service, in assisting us in analysing complicated cases, in setting apart those symptoms which denote the affection of one texture, from those which denote the affection of another, and in judging of the severity of the deranged actions in each.

The history of the different membranes united in the formation of the abdominal viscera, affords us also admirable illustrations of the importance of this kind of investigation. The diseased actions of these membranes may go on with entire distinctness and at different times in each, or they may co-exist at the same moment. Thus the peritoneum may be the seat of inflammation, or of dropsy; the mucous membrane of inflammation, of hemorrhage, of diarrhea, or of dysentery; the muscular coat of spasm, of colic, and of some of the phenomena of dysentery; and these different affections may exist separately, as distinct diseases, or they may become complicated in some individual case.

We are constantly liable to error, if we forget for a moment, in studying pathology, to take into view the modifications of disease, when situated in different textures. What gross ignorance would be indicated, by him who has studied and thought so superficially, as to apprehend that the eyelids would become united to the eye by adhesion in an inflammation of the conjunctiva; that the mucous membrane of the bowels would be glued together in dysentery, or the lips of the urethra in gonorrhea! Yet these, though examples of extravagant error, illustrate very well the sort of mistakes into which we may fall, if we neglect to attend to this subject. In considering inflammation, for instance, in any of its stages, we should be liable to have constantly in our minds, its processes as they proceed in that texture, with relation to which we happened first to have studied it; we should learn to attach to the term inflammation in general, some limited and precise ideas, which we have derived from the study of its progress in some particular texture only, and to consider it as a specific series of actions, the same in every part. In this unqualified manner has it too frequently been used in books of medicine.

But we must not, on the other hand, carry this regard to the textures so far as to exclude the consideration of every thing

else. We find to be sure in a general way, that the same texture exhibits every where, in disease, similar phenomena, and undergoes similar changes; that the serous membranes in the head, the chest, and the abdomen, have every where the same predominating tendency to high adhesive inflammation and to serous effusions; the mucous membranes to suppurative inflammation, and to the effusion of blood or hemorrhage, the cellular membrane to the formation of abscesses. But there are other considerations of equal or greater importance, which are not to be neglected. The phenomena, the progress, the treatment, and the result of diseases, affecting any particular texture, are much influenced by the nature of the function of that organ into whose composition that texture enters. Thus in an inflammation of the tunica arachnoides, we have, besides the common symptoms of serous inflammation, symptoms arising out of the peculiar situation and functions of the organ which that membrane covers; viz. a derangement of the intellect, or phenomena indicating pressure upon the brain. Thus too, in an inflammation of the pericardium, the motions of the heart are affected, in inflammation of that part of the peritoneum covering the stomach, indigestion and vomiting are produced; of that part connected with the bladder and uterus, we have difficulties in the passage of urine, or bearing down pains of the womb.

It is necessary then, always keeping in view a regard to *textures*, to take also into consideration the *functions* of organs, when we investigate disease. To this part of the study, indeed, our previous inquiries are rather preparatory, since upon distinctions drawn from this source, we are chiefly to found our arrangement of the symptoms, our prognosis, and our treatment of any disease.

A moment's reflection is sufficient to convince us that a consideration of the functions and relations of the organ which is involved in the disease, as well as the texture affected, is of great consequence in forming a correct prognosis; that is in forming a judgment of the degree of danger, and probable result of the disease. An inflammation of the tunica arachnoides might threaten life or reason very seriously, which, of the same degree and extent in the pleura, could be attended by no fatal consequences. An effusion in the pericardium may be fatal, which in the tunica vaginalis would be comparatively of trifling moment. The same deposition, or adhesion, which in the iris or cornea threatens seriously to impair the organ of sight, would in many other parts be disregarded as unimportant. The same effusion of blood, which from the mucous membrane of the lungs alarms us as the precursor of an insatiable and incurable disease, from

the same membrane in the eye, the nose, the urethra, or the womb, conveys no terrors, and may even sometimes be regarded as a salutary symptom.

If we examine a man labouring under any considerable disease, analyse the phenomena it exhibits, arrange its symptoms in the order in which they naturally present themselves to our minds, we find it to be made up of affections of several different organs, of various kinds, and different degrees of importance, but all, combining more or less to give to it its pathological character. It is true that, ordinarily, some predominant class of symptoms gives its name and its nosological character to a disease; but it is to be remembered that the nosological is a very different thing from the pathological character. The former is founded upon a regard to a few leading pathognomonic symptoms, and having for its object a definition by words; the latter upon an extended view of the disease in all its connexions and relations, and having for its object a definition by things. It is no doubt right that the predominating symptoms should give to a disease its name and systematic place, but it is of more importance that all the other phenomena should be taken into consideration, and should exercise their proper influence over our views of the pathology of the disease and the measures we are to take in its treatment. It is well known to every practitioner of medicine, that cases, which according to established definitions, stand together in the same systematic rank, may yet be very different in their nature, and require almost opposite modes of treatment.

The phenomena of disease however extensively affecting the system, do probably in most cases arise from the original affection of some one organ, which produces secondarily the effects we observe elsewhere. This is undoubtedly a circumstance to be borne in mind, but it does not at all lessen the importance of attending to the state of other parts; since their disorder, although sympathetic and secondary, is not less real than if it had been excited in any other way. If we know that any particular symptoms are produced by sympathy, it may justly influence us in the mode we take to relieve them, but not at all in our view of them as constituting a part of the disease. It is only by carefully studying *all* the morbid phenomena, that we can understand which are primitive, and which sympathetic. It is not, however, necessary to dwell upon this point, my principal object being to advert to the mode of studying the elementary affections, whether primary or secondary, original or sympathetic, of the different functions, as part of the science of Pathology.

Our object should be to investigate the history of the morbid states of every organ, as denoted by the performance of its func-

tion, following it on from its healthy condition, and constantly comparing it with that, through all its changes, from the slightest deviations to which it is subject, either primary or secondary, to those of a more grave and severe character, in which it is the seat of diseases, threatening its structure, or even the life of the whole system itself.

As an example of what may be effected in this way, I would adduce the advantages which have been derived from the modern investigations into the pathology of the digestive organs. We are all of us aware, how different an aspect many parts of the science of pathology have assumed, in consequence of these investigations. They are of the kind, it seems to me, which should be applied to every function in the system. Not that equal benefit could be expected from every quarter, but enough would be gained amply to repay the same zeal and the same assiduity. Nor do I conceive that our knowledge of the pathology of these functions has yet received all the advancement of which it is capable. Though we have received great light already, much yet remains to be learned, and much probably to be unlearned. It is particularly to be remarked, as connected with the mode of study which I would endeavour to recommend, that in these investigations, the attention has not been confined to those affections which are strictly and originally of the digestive organs ; but has been farther extended to the state of these organs in other diseases, to the influence which they exert upon other parts when they are the subjects of disease, and to the reciprocal influence exerted upon them by those parts.

It is easy to illustrate the advantages of such a system of inquiry as this, as applied to other functions besides those just spoken of. To take for example, those of the brain and nervous system. In order thoroughly to understand their pathology, we must examine them not only when obviously and originally affected by disease, but when only deranged secondarily in the affections of other parts. We must search out their complete morbid history, by examining them in every possible relation. It is not necessary to believe that the brain is the original seat of fever, to make us sensible how important an influence the state of its functions ought to have in forming our estimate of the nature, danger and treatment of the disease. No one who has been conversant with fever at the bedside of the patient, can be ignorant of the great varieties which are to be observed in the state of the intellectual functions, and of the manifest connexion they have with the nature and progress of the disease, even when we have every reason to believe that its actual weight falls upon another part. And yet no one can be ignorant how

much we have yet to learn with regard to the various species of febrile delirium, the causes that produce them, and the consequences of which they are the precursors.

A similar importance is to be attached to the state of these functions in other diseases. Who does not perceive with terror, and watch with anxiety, the approaches of a delirium, towards the close of severe internal inflammations; of the lungs, of the bowels, or of the womb? Who has not seen in this symptom, when it has supervened in a case to all appearance advancing very favourably to a termination in health, the first indication of a speedy and fatal issue? Who does not lament the imperfection of a science which leaves us yet without any sufficient explanation of the state of the system, or of the organs upon which these unhappy occurrences depend; without any knowledge of the signs by which they may be foretold, or the means by which they may be prevented.

Various affections of these functions are observed in different diseases of the abdominal viscera, which show an intimate connexion between the state of these organs, and that of the brain. Upon this connexion probably depends the existence of that singular malady, usually denominated *Delirium Tremens*; and a rational pathology of that disease must be founded upon an intimate knowledge of the nature and laws of that connexion. It seems to me that it can hardly be doubted, by those conversant with the diseases of drunkards, that this particular affection of the brain is produced ultimately by that state of the stomach, liver, and digestive organs in general, which is brought on by excessive indulgence in the use of spirituous liquors. It would not be difficult to show the resemblance of these cases in all their symptoms, except those appertaining to the brain, to others in which there is obviously only that derangement of the digestive system which is so common among the intemperate. It would, indeed, be easy to select a series of cases, illustrating every gradation of this disease, from its slightest form, in which it exhibits merely a deranged state of stomach of a peculiar character, to its most severe, in which not only the functions of the abdominal viscera are completely deranged, but those of the brain and nervous system exhibit the peculiar symptoms which are so strongly characteristic of the disease.

But still further, these peculiar symptoms are not confined to cases of this sort. They are liable to be excited in the course or towards the termination of every severe disease to which drunkards are subjected. There is a pre-disposition in their constitutions to delirium of this character, and it may be produced, in a greater or less degree, whenever there is any severe

impression made upon the system, or any unusual commotion is excited in it. In the temperate, every severe disease excites a sympathetic derangement of the digestive system, the circulating system, and frequently of the brain. In the intemperate also, a corresponding sympathetic derangement is excited, and excited more easily than in the temperate; but it every where exhibits a peculiar character originating from their habits of life. Thus when in ordinary constitutions, there would be merely slight nausea, a loss of appetite, and a loathing of food, there will be in drunkards a perplexing derangement of the stomach, which rejects every thing, whether of nourishment or medicine, which is thrown into it; when in the temperate there would be merely a painful affection of the head, or at most, an innocent wandering of the intellect, there will supervene in the intemperate the peculiar phenomena of delirium tremens. This sometimes happens to such an extent, that the original disease is completely shrouded and obscured by these accidental symptoms which have arisen in the course of it. It certainly not unfrequently occurs, that a case shall at its commencement exhibit distinct marks of Pneumonia, shall after a few days become apparently converted into delirium tremens, but upon dissection after death present the usual appearances induced by inflammation of the lungs. Hence it may often be the case that patients whom we deem to be affected simply with delirium tremens are in reality the subjects of a very different disease, the symptoms of which have been obscured and concealed by the occurrence of this disorder of the functions of the brain, before we had an opportunity of observing them. And from this cause probably arises the difference of opinion and uncertainty which exists in the minds of physicians with regard to the best method of treating this complaint.

I have introduced these observations upon some of the disordered states of the functions of the brain, merely as an illustration of the objects we should have in view in this department of the study of pathology. In the same way the state of these functions should be examined in all diseases, and in the same way also the morbid history of all the other functions. It is almost unnecessary to point out how the knowledge we shall have acquired from this method of studying General Pathology, will assist us in the examination of the pathology of particular diseases, or to what extent it will be useful. It will in fact be no longer the acquisition of knowledge, but its application to the practical purposes for which it was designed. There is much to be said upon this division of the science, and much also upon another most important subject, the connexion of the study of the Materia

Medica, and of General Therapeutics, with Pathology considered in the view which we have taken of it. But these are not topics which the present occasion affords any opportunity to discuss.

It may seem perhaps an omission that I have not spoken of the study of Morbid Anatomy, as part of the science of Pathology. I have avoided alluding to it particularly for two reasons; first, because Morbid Anatomy is rather a mode of getting at the facts on which the science is built, than part of the science itself; and secondly, because at the present day its importance and benefits are fully understood and sufficiently acknowledged; and have sometimes, I fear, been insisted on to the exclusion of some other modes of investigation, of great, if not of equal importance.

* * * * *

Cases in Morbid Anatomy. By JOHN GORHAM, M.D.

[Communicated for the New-England Journal of Medicine and Surgery.]

CASE I.

Tuberculated state of the mucous membrane of the larynx, and part of the pharynx, complicated with phthisis pulmonalis.

MR F. W. I. the gentleman who was the subject of this case, was rather above the middle height, well formed, but slender, of a convivial disposition, and possessed of a fine voice, which he was always ready to exert for the amusement of his friends. His age, if I recollect aright was about 36 years. He had been healthy, with the exception of a severe attack of acute rheumatism which he experienced in Russia some years before.

I visited him for the first time in the latter part of December, 1821. He had laboured for some days under a sore throat, to remedy which he had applied a large blistering plaster over the anterior part of the neck, which affected him severely, and for which he required my advice. In a few days, the blistered surface, by the application of emollient dressings, healed, but the soreness of the throat was but little diminished. At this time, however, he pursued his usual occupations, and I had no opportunity of seeing him until some time in January, 1822, when he called upon me for advice. On attentively examining the throat, the mucous membrane of the uvula and fauces was found to be inflamed; the redness, however, was not uniform, it being more intense over the amygdalæ than on any other part; the uvula and velum appeared smooth and shining, and somewhat mottled, with superficial vessels turgid with blood running in various di-

rections. The amygdalæ were not enlarged. The membrane behind the uvula was red and thickened. On inquiry I found that Mr. I. had experienced a similar but milder attack in the winter of 1820—21.

Together with this local disease, he had the following symptoms. The countenance which was naturally florid, had a dingy appearance, with some anxiety; his voice was hoarse and husky, the tongue was whitish at the sides, and yellowish in the middle, rough and moist; there was pain and some difficulty in swallowing; the appetite was diminished; bowels regular; pulse 77, full, but not hard; no pain nor uneasiness about the chest; there was cough at times, but the intervals were long, and it came on in paroxysms, particularly during the evening and night, and terminated in a copious expectoration of white and viscid mucus. During the day there was a continual secretion of this mucus, which was removed by frequent hawking and spitting. He felt weakened and there was some emaciation. He was ordered to take an emetic, to be followed by a cathartic; and at night, a pill composed of ipecacuanha, calomel and opium. Animal food was allowed once a day, but he was recommended to abstain from wine, and distilled liquids. These means had but little effect in diminishing the disease. He was, however, still able to pursue his business, and he generally called upon me about twice a week. From this time until the first week in February, he was treated principally with mild cathartics, demulcents, and alteratives, taking the opiate at night, with the omission of the calomel. The soreness of the throat at length became so great, and his appetite had so much lessened that he refused to take solids. The appearances in the fauces were the same; the secretion of mucus was very abundant, and in the course of a day he threw off a great quantity by hawking. The cough still continued, but the paroxysms, though increased in violence, did not recur frequently. The pulse was full, but not hard, and varied from 70 to 77; he could take a full inspiration without producing pain or cough, he could lie on either side, or on the back; there was no pain about the chest, and the little uneasiness which he occasionally experienced seemed to be the result rather of muscular efforts made in coughing, than of any morbid change in the contents of the thorax. At this time, in consequence of the unfavourable state of the weather, he confined himself to his room. He had become weaker, and was troubled occasionally with night-sweats. From the difficulty of swallowing, he was ordered bread and milk for breakfast and supper, and beef-soup for dinner; his drink consisted for the most part of almond syrup and water. Leeches were applied round the throat, and after-

wards blisters were drawn which were kept open by savine ointment. He was directed to take a pill of one grain of calomel, with a sufficient quantity of opium to prevent it from acting upon the bowels, thrice a day, until it produced ptyalism.

There was little alteration until the third week in February, at that time the calomel began to affect the gums about the back teeth; so soon as this took place there was a perceptible alteration for the better; the countenance assumed a more healthy and natural expression, the soreness of the throat diminished a great deal, though it never entirely disappeared, his strength daily improved, and as the weather, for the season, was remarkably fine, he took much exercise in the open air. The appetite was likewise greatly increased. The medicines were then discontinued. He took tincture and decoction of cinchona, with animal food at dinner, and was allowed with it porter or brandy and water. The cough was no longer troublesome, and for several nights he enjoyed tranquil sleep without the aid of an opiate. I had strong hopes that the disease was conquered. But in the course of ten or fourteen days, as the effect of the mercury subsided, he began to fail, and as the weather was bad, he was again confined to his room, the soreness of the throat returned, he lost his appetite and strength, emaciated rapidly, and the cough increased, still however recurring in paroxysms with long intervals; he had occasional night sweats. Finding that a relapse was taking place, and having experienced the good effects of a mild mercurial course, recourse was again had to it; and as the debility was very considerable, the bark with wine was prescribed in as large doses as could be borne; but the throat was so exceedingly sore and tender from the disease, that he could not be prevailed upon to take more than one dose daily, and finally refused to take it altogether. Much difficulty was experienced in persuading him to take any thing which was sapid. He would drink nothing but *orgeat*, arrow-root, or oatmeal gruel, to the last of which he gave the preference. About the third week in March the gums again became very slightly affected by the calomel, but as it was not followed by any evident amendment, he absolutely refused to take this or any other medicine. He employed another physician; his strength failed rapidly, and he died on the 19th of April. About four weeks before his death diarrhœa for the first time appeared, and a week after, as I was informed, pus in very small quantities was observed mixed with the mucus which he expectorated.

Examination post mortem. The body was examined twenty-four hours after death by Dr. Jeffries and myself. On removing the larynx and trachea and cutting through it longitudinally at the back part, the mucous membrane was found studded with

tubercles; these tubercles, which were white, and shining, and varying in size from $\frac{1}{20}$ to $\frac{1}{12}$ of an inch in diameter, were most numerous about the rim glottidis; they were hard, apparently of a scirrhus nature, and of a semi-spherical form. The tubercles extended above the larynx, but diminished both in size and number. The upper part of the pharynx appeared likewise to have taken on the same action. There were no tubercles about the amygdalæ; these glands were of the usual size, but the mucous membrane which covered them was inflamed. The trachea was filled with mucus in which were interspersed small distinct masses of pus. The mucous membrane exhibited no tubercles. The lungs on both sides were diseased; the left lung was collapsed, there were a few old adhesions at the superior and posterior part; the whole organ was filled with tubercles, which when divided by the knife were found in a state of incipient suppuration, and there was one distinct collection of pus, about $\frac{1}{4}$ of an inch in diameter, on the anterior part of the superior lobe. The structure of the right lung was very similar, though upon the whole it was less diseased than the left. The heart was not examined; the abdominal viscera appeared to be sound.

Remarks. The state of the larynx and pharynx accounts in a very satisfactory manner for the husky and hoarse voice, and the pain and difficulty of swallowing observed in the patient throughout the course of the disease. The rough and tuberculated state of the membrane about the glottis must have had a considerable effect in lessening the size of the passage, and in impeding the action of the muscles which form the voice.

The effect of the first course of calomel was decidedly beneficial, and it appears to have done all that could have been expected from medicine, but though it relieved the inflammation in the fauces which was visible, yet it had no permanent influence on the formidable disease below, of which that inflammation was merely a symptom. The second course was not apparently injurious, as the medicine was so gradually introduced into the system that it produced no sensible evacuation, that I could perceive, either from the skin, the bowels, or the kidneys. The latter were regular during the whole time of its exhibition, and there was no increased alvine evacuation for more than a week after its administration was suspended. The affection of the mouth was so slight that it did not amount even to ptyalism, much less to salivation.

The great anomaly, however, in this case was the want of coincidence between the symptoms and the actual state of the lungs. The characteristic symptoms of phthisis pulmonalis were not present. The pulse on an average was about 75, rather full; there

was no hectic fever, the respiration was always slow and full, excepting immediately after a paroxysm of coughing, and he could take a deep inspiration without feeling pain or a disposition to cough—he experienced no inconvenience in lying on either side, or on the back—the cough itself occurred only at long intervals, though it was violent while it lasted, and had the character of a cough produced by irritation in the larynx and trachea, rather than in the lungs themselves. I never saw any decisive evidence of pus in the mucus expectorated, though it was frequently examined with that view. So little in fact was the uneasiness about the thorax, that in one of my visits to the patient about six weeks before his death, he struck himself forcibly on the chest with his clenched hand, and exclaimed, “I feel as sound here as I ever did in my life.” The only symptoms which appeared to indicate phthisis were emaciation and night-sweats, but neither of these is characteristic of phthisis alone; the former indeed might be supposed necessarily to happen from the small quantity of nourishment which the disease in the throat permitted him to take; and the latter was by no means constant; it occurred much more rarely than is usual in common cases of phthisis, and seemed to be owing partly to debility, and in part to the heat of a very warm and small room in which a fire was kept during the whole twenty-four hours.

CASE II.

IN the year 1803, I attended —— Mumler, a musician by profession. He was a member of the Boston military band, and it was his duty to play on the *horn*. He was a German by birth. His age was apparently about forty, of middle stature, robust form, fat, and had a full and well formed chest. His disease was a violent pneumonia, which resisted all remedies, and he died in five days from the time I first saw him. There was nothing remarkable in the symptoms, excepting a dyspnœa, which was constant and distressing, and which was greater than is usually found to attend inflammations of the lungs. After his death I was informed by his wife, that they had, some time before, agreed that the one who should die first should be examined for the satisfaction of the survivor; accordingly she requested me to open the body, which was done the next day in company with Dr. Bullard.

On examining the thorax by percussion, the left side resounded, while the right side returned a dead sound, like that produced by striking a solid body. I may here remark that the patient during life complained mostly of the right side. The cellular tissue over the thorax was loaded with fat, and nearly an inch in thickness. When the sternum was removed, the right lung was found gorged with blood, coagulable lymph had been effused

upon its surface, as well likewise as upon that of the pleura costalis, and adhesions between the two surfaces had begun to be formed in various places. On looking into the *left* cavity of the thorax, nothing was visible but a quantity of liquid of the colour of whey, turbid, and containing filaments or flocculi of a whitish appearance. When this fluid, which amounted to about a pint, was removed, the cavity was apparently empty, and no lung could be seen. On examining, however, more narrowly, a dense, flat substance, of the size of my hand, and of a greyish colour, was seen occupying the anterior and inferior part of the cavity, lying near the mediastinum. This was all we found of the left lung. From its size and density it was evident that it could not have performed any part in the process of respiration, and this was proved by the circumstance that the bronchial tubes which led to it were lessened in size, and their cavities were obliterated.

On asking his wife whether he had been subject to cough or difficulty of breathing, she said that fourteen years before he had had a severe attack of pleurisy, which lasted a long time, but from which he appeared to have perfectly recovered.

This condition of the left lung will readily explain the reason, why, when the right lung was highly inflamed, death must of necessity have followed. It is an extraordinary fact that this man should have been able for several years to perform on the French horn, an instrument which requires great exertion of the expiratory muscles and command over the breath.

CASE III.

Contraction of the Stomach.

January 1st, 1808, Richard Johnson, a negro, aged 35 years, entered the Boston Almshouse, with confirmed phthisis pulmonalis. Besides the usual symptoms, which were very severe, he had been subject for several months to almost incessant vomiting, so that very small quantities only of liquid food could be retained. Whenever I visited him he was in the act of vomiting. To allay this inordinate action of the stomach, he was given some powders, each containing five grains of oxide of bismuth with an equal quantity of powdered colombo root. The first dose checked the vomiting, and during the remainder of his life, viz. for about a fortnight, it occurred only at long intervals, and was very slight.

On examining the body after death, the lungs exhibited the usual appearances, which those present who die of tubercular phthisis. The state of the stomach was peculiar. A contraction had taken place about the middle of it, which lessened the cavity to the size of a common quill, while it enlarged towards

both orifices, so as in fact to give the spectator the idea of two pouches or stomachs. The contracted portion was about an inch in length, and possessed great firmness.

September 5, 1821.

Case of Syphilitic Ulceration of the Larynx. By WALTER CHANNING, Junr. M. D.

[Communicated for the New-England Journal of Medicine, &c.]

A. B. aged 30, had primary symptoms of syphilis, September, 1819. Some local applications were made, and a mercurial course pursued. Under these means the symptoms disappeared in two or three weeks. In November of the same year, he was attacked with darting deep seated pains in the extremities, and night sweats. The pains at times amounted to spasms. Soon after an ulcer appeared on the forehead, and another on the leg. Under the use of mercury the first healed kindly, and firmly cicatrized. In February, as the ulcer continued on the leg, the mercury, which had been given up, on the healing of the ulcer in the forehead, was again employed. Under this course the leg got well, and every symptom of disease disappeared. In July, being at sea, an eruption appeared on his right arm, and proceeded rapidly to ulceration. The pains in the limbs returned with increased violence. Mercury was again employed, but without effect, and was laid aside. In September he went into the country, here he took mercury again, and his mouth became affected. The ulceration of the arm now soon healed; the pains of the bones went off, and his health was so far restored that he returned to his ordinary business. He continued free from complaint till the return of cold weather, severe pain now recurred in the extremities, and a tumour of considerable size appeared on the ulna of the left fore-arm. This manifested no disposition to ulcerate, and continued of its original size when I first saw him. About the same time ulceration occurred in the back part of the nose and fauces, and this went on to increase. The ulcers were small. In the progress of the ulceration of the nose, portions of bone had been discharged through it, and from the mouth. A profuse and extremely offensive discharge attended this process, and continued at the time I first saw him, September 9th, 1821. Beside the affection of the nose and fauces, he suffered at this date, severe chills, and great pain in the extremities at night; was much emaciated, feeble, and troubled with diarrhœa, pass-

ing at times into dysentery. He was put upon the use of the decoction of sarsaparilla, and nutritious diet.

September 17th.—Symptoms have continued with little diminution. The discharge from the nose has varied in quantity, and there was removed from the nose this day a portion of bone three quarters of an inch in length. He has begun with the tincture of the muriate of mercury.

October 9th.—Discharge from nose very slight,—smell less offensive; pain in the limbs diminished; some stiffness remains.

October 10th.—A portion of bone larger than any former one was removed to day, some pus preceded and followed its removal.

From the 9th to the 24th of the month the symptoms underwent very little change. There were some days in which some increase was manifested, but this was temporary. On this day the patient removed from the nose, a large mass of inspissated mucus, which appeared to have gradually accumulated over the ulcerated surface, and had become hard by remaining in the part. The surface which had been in contact with the ulcer was covered by a sanious purulent matter.*

October 31st.—The symptoms have latterly been less urgent. The discharge has lessened, the pains declined, and the whole situation of the patient been more comfortable. On this day a large mass of an irregular shape was removed from the nose. It exactly resembled that described above.

November 5th.—An increase of symptoms has occurred. The discharge has its former fetid smell; pain in the head; some pain in the limbs, a large mass of inspissated mucus discharged.

From the above date to December, the symptoms underwent little change. Tumours occurred on the extremities, particularly the upper. The forearm and fingers suffered most. These tumours were very painful. The sufferings of the patient were enhanced by increased pain in the knees, and his sleep much disturbed. The nose which for a long time has been tender, is now the seat of pain and soreness.

December 7th.—Up to this date the general health had not been very greatly disturbed. At this time he has more pain, and is febrile; is losing the flesh he has gained in the intervals of severe symptoms; his left hand is the seat of the greatest pain; a scaly eruption has existed for some time on his thigh with

* In a case somewhat resembling the above, similar masses were frequently discharged. Some of these were of considerable size, and had the shape, and nearly the dimensions of the cavity in which they were formed. These masses are the secretions of the lining membrane of the nose, increased and perhaps altered somewhat from health by the morbid processes going on in the part.

inflammation; ulceration has taken place on the thigh; ulcer is covered with a scab.

December 13th.—The scab has separated from the ulcer on the thigh; edges of the ulcer square; surface presents irregular granulations; surrounding inflammation abated.

January 9th, 1822.—From last date symptoms have been less severe, and upon the whole the patient has been gaining. On this day a portion of bone was removed from the nose. There has been some pain in the head, with swelling on left side of the nose and at times increased soreness. Swelling soon after occurred on the right side, and here the soreness was so great, and apparently so superficial that the patient believed ulceration would occur externally. These symptoms gradually declined.

Pieces of bone were removed on February 3d and 7th. On the tenth a portion of unusual size having descended partially, became wedged. It could be seen in both nostrils. It excited much local irritation. Between this and the 19th the bone came away. Feet and ankles swollen, the ulcer on the thigh healing.

February 20th.—A large piece of bone extracted, with much subsequent relief. Purulent discharge has ceased. It returned early in March, but in small quantity.

March 13th.—Is to-day hoarse and complains of sore throat. In the last month, and thus far in March, he has been gaining strength and flesh. Has been out of bed much of the time, and walking freely about the house. He attributes the affection of the throat to cold taken during exercise in unpleasant weather. On the 15th the throat better; no discharge from nose on 17th. Has expectorated to day inspissated mucus, with small quantities of dark coagulated blood.

March 18th.—Is very hoarse, throat quite sore.

— 19th.—Hoarseness continues. Fauces red without swelling or ulceration. Tumour on left ulna has lately increased in size, is soft and painful.

— 20th.—Voice more clear; throat better.

— 21st.—Hoarseness continues; pain is experienced in swallowing but not in speaking; expectorates bloody matter.

— 23d.—Slept well last night, and feels better to day. Voice better; more loud and distinct, but still hoarse, with soreness of throat.

— 26th.—Symptoms have continued, a piece of bone came from the nose; throat worse; face flushed and swollen.

— 27th.—Throat very sore; on examination, back part of fauces dry, but without any appearance of ulceration.

— 30th.—Voice much improved, nearly natural, soreness of throat much diminished.

April 28th.—From the last date has suffered at times, much from pain and soreness in the abdomen. Has complained greatly of pain in the head. The ulcer on the thigh has been growing worse, and the pain of it has rendered his nights very distressing. At this date, somewhat hoarse.

—— 29th.—Hoarseness continues.

—— 30th.—Vomited once; voice less hoarse; slept tolerably, but sweat profusely, and complains of much weakness. Pulse full. Tongue moist. Sense of stiffness about the throat, with difficulty in swallowing and breathing. Vomits copiously a thin yellow curdy fluid. A vesicating plaster was applied to the throat.

May 1st.—Blister has risen well, but has produced no relief—has vomited twice since yesterday; his night was tolerable. Pulse as before.

—— 2nd.—Vomited yesterday—alvine discharges large, with pain. Pulse 90, full. Is now vomiting from exertion he says in talking. Voice rather better, but the throat remains the same.

—— 3d.—Vomited once. Pulse as yesterday. Throat excessively troublesome; says he cannot breathe with ease. Swallows with great difficulty.

—— 4th.—Great soreness in the throat, but the difficulty of breathing rather diminished. Pulse 100, rather less full. Painful diarrhoea.

—— 5th.—The difficulty of respiration is greatly increased: he breathes with a hissing noise. Pulse 90, firm: very little sleep. Difficulty of deglutition very great.

—— 6th.—Dyspnoea is constantly increasing; respire with a loud noise, and with great labour. Pulse 144, small, feeble; sleep almost wanting. Coughs, but with trifling expectoration.

—— 7th.—Respiration as yesterday; expectorates some purulent mucus. Mind clear, pulse 108. 4 P. M. Sitting erect in bed: eyes staring—mouth open; respiration exceedingly laborious; mind clear; pulse 120. At 8 in the evening the patient died.

Examination after death.—May 8th.—Great emaciation. On opening the larynx an ulcer was discovered occupying its posterior and superior portions, deepest on the left side, and extending there to the sacculus. The ulcerated parts were of a dark colour. An irregular and carious piece of bone was found lying loose in the ulcer, and floating in purulent matter. The thyroid cartilage was ossified, and in the process of caries this portion had been loosened from the rest. The pharynx exhibited traces of

inflammation on its mucous membrane. The abdominal viscera presented nothing remarkable.

Remarks.—In the above case, I have principally confined myself to a narration of those facts which relate to the disease as it showed itself in the nose, the fauces, and the larynx. The case is published principally on account of the disease of the larynx, and for the manner in which it produced death. In a disease of so long standing, and so universal in its extent, it could hardly happen but that various disturbances would occur in other organs, besides those in which the most pressing symptoms were ordinarily manifested. This was the case here. The bowels frequently suffered, and pain and diarrhoea not unfrequently occurred, and demanded the most regard in the treatment. With the exception of the earliest period of the disease at which I saw him, it was not until towards the close of the case, that the patient was much confined to his bed, or was greatly emaciated. There were times in which he gained flesh and strength, and the affection of the nose was so much diminished, that a prospect was afforded of ultimate recovery. The treatment consisted in the free use of the decoction of sarsaparilla, and in the employment of such doses of the tincture of the oxymuriate of mercury, as would maintain a moderate mercurial action. This gave place to such other means as the varied circumstances of the case demanded. His diet was nutritious, and such articles as were most readily digested, constituted his food.

It appears from the earlier history of this case, that some ulceration of the fauces had existed. This, however, entirely disappeared in the progress of the case, and at the time of the first complaint of uneasiness of the throat, a very careful examination of the part discovered no unusual appearance there. In the progress of the laryngeal disease, some redness was observed in the fauces, but neither swelling nor ulceration. The most remarkable appearance here, was a rather darker colour than natural, and an unusual dryness.

The effects on the patient as they occurred under the increasing affection of the larynx were very striking. He rapidly lost strength, appetite, and flesh. His sleep was disturbed, and the countenance exhibited anxiety and suffering in a high degree. For a short time before death, he could rest only in a sitting posture, with his body inclining a little forward, his head turned up, and his chest fixed by firm pressure with his hands on the bed. The respiration in the last days of life was extremely laborious. The difficulty of breathing is readily explained by the state of the larynx as it appeared on dissection. It began with the inflammation of this part March 13th, and increased

with it. Caries in the ossified cartilage at length took place, and soon afterwards a piece of the dead bone was separated from the rest. No very decided effort seems to have been made for the removal of the loosened bone. The natural irritability of the part was nearly destroyed in the rapid progress of inflammation, and its processes, and the patient seems to have sunk not so much from the direct effects of the foreign body in the larynx, or from suffocation, as from the more gradual effects of a diminished respiration. Very little air probably entered the lungs, and this little with great difficulty. Much power was thus wasted, and the blood which returns to the heart, for important purposes, was but very imperfectly prepared by the pulmonary circulation, for its uses in the system. In the London Medical and Physical Journal, the numbers for April and May, is a paper by Mr Hawkins, on *Syphilitic Ulcers of the Larynx*.

It became a question in the above case whether bronchotomy should be performed. There was no ground for the belief that the operation would answer any beneficial purpose, and it was not done.

The following extracts from Mr Hawkins' paper relate to the same subject.

'How far the operation of bronchotomy may be successful in cases of ulcerated larynx, is a question of some importance. I have only seen it performed in one case of this kind, which was a disease of the larynx following the acute sloughing ulcer of the throat. The patient was seized with a sudden fit of difficult respiration, having all the appearance of spasmodic action of the muscles of the glottis. He was evidently so nearly dead, (and in fact he died in less than five minutes after the seizure,) that I considered myself justified in opening the larynx immediately, as the only possible means of saving his life. He scarcely lived long enough, however, to breathe through the artificial opening; nor was his recovery to be expected, from the large quantity of frothy mucus with which the lungs were gorged.

'In Mr LAWRENCE's paper on the Affections of the Larynx requiring the operation of Bronchotomy,* a number of successful cases are recorded; but almost all of them were performed for the extraction of foreign bodies, or for acute diseases of the larynx; and I do not recollect any successful case, in which ulceration of the larynx was known or suspected to exist, although there are several cases in which the patient's death was evidently retarded.

'I cannot but think that the operation is only likely to be at-

* *Medico-Chirurgical Transactions*, vol. vi. p. 240, 241, *et seq*, and 250.

tended with success in the more acute diseases of the larynx, and is not at all advisable in cases of ulceration. It is allowed on all hands, that the effects of diseases of the larynx, "are in themselves fatal after a certain time, even if the original obstruction be obviated:" hence the operation "is ineffectual, unless performed early."* There are very few cases of ulceration in which the operation is likely to be proposed till the disease has existed so long that these fatal effects have probably supervened; and I am inclined to think that all those who would get well after the operation, might be cured without it. Of the two last cases mentioned by Mr Lawrence, the first appears to me to have been evidently one of inflammation; the last was one of ulcerated larynx, mentioned also by Mr Bell, who performed the operation: the former succeeded, the latter failed.

Mr Lawrence remarks, "The different results of Donovan's case, (the ulcerated larynx,) particularly after the favourable appearances exhibited in some parts of its progress, leads us to reflect on the causes of such a difference. Although the operation was longer delayed in the latter instance, and the artificial opening less free, yet the death of the patient must, I think, be ascribed to an original difference in the nature of her affections: a difference which, for the reasons so well pointed out by Dr Latham, cannot be recognized by the symptoms. We have already seen that different affections are discovered, after death, in patients whose symptoms, derived from the interruption of the respiratory and vocal symptoms, which is common to them all, exhibited no diagnostic differences; that in some there was a mere thickening and change of structure in the membrane, while in others the cartilages were diseased. We may be allowed to conjecture that Jones's disease was of the former kind; while we know, from dissection, that Donovan's was of the latter."† It appears, from these remarks, that Mr Lawrence would not advise the operation of bronchotomy where the cartilages of the larynx are diseased.

* *Medico-Chirurgical Transactions*, p. 248.

† *Ib.* p. 262.

Clinical Remarks. No. IV. By A. L. PEIRSON, M. D.

[Communicated for the New-England Journal of Medicine and Surgery.]

Injuries of the Head.

THE most inexperienced of the profession now know, that every injury of the cranium, accompanied with depression of the bone, or with a wound of the brain, does not necessarily require a surgical operation. Opinion upon this subject is daily brought to the test of experience, and error cannot long remain unexposed.* The danger to be apprehended is not most likely to arise from the bone being depressed, but from inflammation some time after the accident. The writings of Mr John Bell have impressed the mind of the medical student with the absurdity of the ancient system of trepanning upon every fissure of the skull. And the very clear and satisfactory practical treatise of Mr Abernethy, upon injuries of the head, teaches us where to look for, and when to expect the symptoms of danger which arise from these injuries. The following cases, which have fallen under my observation within little more than a year past, exhibit some practical lessons which may be thought interesting.

June 3d, 1822. Brown, aged 4 years.—Fell from the second story upon the post of the bannister, at the bottom of the staircase. The corner of the post struck the superior part of the parietal bone. A portion of the hairy scalp was carried in upon the brain, was caught in a fissure of the fractured bone, and remained firmly secured. There was no depression of the bone, and the child was not insensible. An angular portion of the fractured bone was sawed across, and the incarcerated piece of scalp was released; when it was found the dura mater was penetrated, and the brain wounded; a small portion of the cortical substance escaped. The wound was lightly dressed, mild purgatives were prescribed, and the patient put upon a non-stimulant diet. No symptom occurred to retard the cure, and Dr Johnson, in whose practice the case occurred, and with whom I visited it, has assured me that no symptoms have since appeared, indicative of the nature of the accident. The wound threw out some luxuriant granulations, which were repressed without injury, by caustic applications.

April 22d, 1823. Hunt, aged 17.—While employed as a mason's apprentice, was struck, by the falling of a floor, with

* As early as 1678, James Young published a book in London, with the title, 'Wounds of the brain proved curable,' &c.

the end of a heavy piece of timber, and was confined some seconds against the chimney, by the end of the timber resting upon him. The blow was upon the side of the head, and dislocated his lower jaw. He bled freely from the nose, and was bled from 12 to 16 ounces from the arm.

April 23d. Has much pain of the head—slow, full, and irregular pulse—double vision—is perfectly rational and collected. Was bled from the temporal artery about a pint, and took a purge of submuriate of mercury, to be followed by infusion of senna.

April 24th. Purge operated well, and symptoms are less severe. Was bled from the arm to a pint. Has been kept to a non-stimulant diet, and had his head frequently cooled with vinegar and water. Continues the use of laxative and diaphoretic medicine.

25th. Pain and other symptoms lessened, asks for food. Complains of a dull pain, and stiffness about the loins.

26th. Thinks himself much better, desires to sit up, and have food; has free evacuations from the bowels. Has been allowed to eat custard. Still feels the pain in the back, though not severe.

27th. Favourable appearances continue. Embrocations have been applied to the spine, along the whole course of which some pain and stiffness is complained of. Pulse nearly natural, and the patient has decidedly the appearance of being convalescent.

28th. Patient has suddenly become restless and uneasy. Complains much of pain, and stiffness of loins and back—lays with his head drawn back—pulse more frequent.

29th. Symptoms much aggravated—distress and jactation very great, pulse very frequent, and rather full. Was bled 12 ounces. Has used the warm bath repeatedly for two days. Has had the scalp shaved and blistered, and the bowels frequently moved.

30th. Died early this morning. No examination was allowed, though urgently requested. The conjecture which appeared most probable was, that there was effusion, and probably a fracture, at the base of the cranium.

June 3d, 1823. Cross, aged 10 years.—Fell backward from a height of twelve or fourteen feet. A sharp stone penetrated the left parietal bone, and several small pieces of the cortical substance of the brain were found sticking about the wound. A portion of bone on one side of the wound was considerably depressed. The boy was languid and feeble, but not comatose. The pulse was slender and rather slow. The wound was lightly

dressed, the patient was prohibited food, and ordered to take a laxative medicine. It was determined in consultation that it was not necessary to attempt an operation to raise the depressed bone, and agreed to guard against inflammation, and wait the result. He was bled twice on the second day, and after this no active treatment was required. He was kept upon the non-stimulant diet, and under the judicious management of Dr Holyoke, jr. whose patient he was, recovered in a very few days, without the occurrence of an alarming symptom. The depressed bone appeared to regain its level. Since his recovery there appears to be a little dullness of intellect, but sufficient time has not yet elapsed to show what permanent bad effects will result from the accident.

July 29th, 1823. Gavot, aged 16.—While riding a horse at full speed, the horse suddenly turned a corner, and threw him with great violence. His hat, which was of thick felt, bore the marks of a pebble, or some other small body, about as large as a horse-chestnut, and a corresponding indentation was found upon the left parietal bone. On attentive examination it was found there was fracture and depression of the bone to very small extent. The boy was faint and nearly insensible—vomited several times on being moved—pulse 60, very languid—has swallowed several drams of brandy and water, which do not appear to have had any effect. A tumour of the scalp soon arose, which was freely divided and suffered to bleed. Complains of pain when the injured part is touched, and resists with his hands. Let him take submuriate of mercury for a purge.

On the second day he continued very sleepy and stupid, but can be roused to answer intelligibly. Eyes look strained, and a little blood-shot. Pulse slow, regular, and a little more full. He was bled to twelve ounces, when he became very faint, and sick at the stomach. Calomel, which he took yesterday, operated freely in the course of this day.

On the third day, to obviate any incipient inflammation, was bled again, and with no better effect than before. He became faint and sick, and the bleeding was stopped at six ounces.

For several following days the pulse continued at 54, exceeding small and feeble; complains greatly of pain about the head, and refers it to the injured part; countenance natural—pupil contracts on the approach of light. Has several times asked for food and drink. Continues to lay in a state resembling sleep, but easily awakened. Has had daily evacuations, procured by purgatives. On the sixth day the left side of the head was shaved, and a blister applied. Symptoms are the same as at first.

On the eighth day, at evening, I found him raised up in bed, sucking an orange, and answered very readily that he felt a little better. Pulse 58, very languid.

On the fourteenth day he was convalescent—pulse 60, moderately full—has continued well to this date.

In this case, in which the symptoms rather arose from the concussion of the brain, than any irritation, or inflammation, caused by the depressed bone, bleeding from the arm appeared to produce no decided beneficial effect. The use of this remedy, so important in preventing membranous inflammation, is sometimes brought into discredit by being used too early after accidents of this kind. When a man is stunned by a blow on the head, he is taken up, while faint and sick, and bled immediately, as a thing of course. In general it is better to wait till a moderate degree of re-action takes place, till the faintness and nausea are gone, and the pulse becomes more full, which generally happens within twelve hours.

Purging with submuriate of mercury, and the neutral salts, is a very great auxiliary to bleeding; and these, with the non-stimulant and cooling plan of management, constitute the only treatment necessary for by far the greatest part of cases of injuries of the head. The sympathy of the liver with injury of the head, although *not* generally believed to arise from actual concussion of the liver, is sufficiently remarkable to have attracted general notice, and is perhaps the reason why the mercurial preparations constitute the best means of purging.

One of the most dangerous forms in which injuries of the head are found to occur, is that of compression arising from the separation of the dura mater from the skull by a blow, either with or without fracture or depression, and where the vessels have poured out their blood into the cavity, and formed a coagulum. In these cases, flattering and deceptive appearances of convalescence occur, similar to those remarked in the case of Hunt. Mr Abernethy details three cases of this sort, where the middle artery of the dura mater was ruptured;* and in one case the coagulum was *one and a half inches* in thickness, and *six or seven in diameter*. (On injuries of the head, p. 36, London edition.)

In all cases of injuries of the head, the leading indication appears to be this: since the violence of the symptoms is not in

* Can it possibly be an unintentional mistake of Mr Charles Bell, when with some severe remarks he asserts that Mr Abernethy represents the dura mater as 'torn up' by the extravasated blood? (Quarterly Report of Cases in Surgery, part 4th, of fracture of the skull, and of the counter fissure, p. 465.) It certainly required but a small part of the anatomical knowledge of either of these distinguished men to perceive that the connection between the dura mater and skull was too strong to yield to the force of any vessel to be found on the surface of the brain.

proportion to the depression of the bone, nor even of the compression actually existing, some cases having been recorded where a depression of an inch and a half existed, and where the recovery was complete, without a bad symptom, *the existence of pressure on the brain occasioning dangerous symptoms*, can be the only reason for elevating the depressed portion of bone.

Salem, Sept. 3, 1823.

Case of Disease of the Knee Joint. By SAMUEL WEBBER, M. D.

[Communicated for the New-England Journal of Medicine and Surgery.]

IN the beginning of August, 1822, a young man called upon me, and requested my opinion concerning his knee. His statement was, that about two and a half years previous, in attempting to jump upon a sledge, going rapidly down hill, he missed his footing and fell; and, still holding by one of the stakes and endeavouring to recover himself, bruised and cut his knee upon the ice and frozen ground. As the wound appeared to be trifling, and at first produced no great inconvenience, he paid but little attention to it for a day or two, when the joint became swollen and painful, and he applied for medical aid. His account of the treatment was rather confused, and I am not certain that I understood the particulars right; but as nearly as I recollect, the physican to whom he applied furnished him with an ointment to be rubbed upon the part; which after a few days produced a number of pustules, while the local complaints, pain, swelling and uneasiness upon motion were much aggravated. This induced a change in the mode of treatment; and by rest, cool saturnine lotions, and the like, the inflammation was reduced; but the limb generally, and the knee in particular, seemed very feeble. After remaining in this state a few days, a large blister was applied over the joint, which was very painful in its effect, and left the joint still worse than before; to use his own phrase, 'it run it quite down, and it had remained pretty much so ever since.' In the mean time he had had at different times the advice, and tried the prescriptions, of every physician of any note in the neighbourhood. He had been repeatedly blistered, had used a variety of washes and plasters, and had kept a large caustic issue below the knee for several weeks, all without any advantage, and fortunately without any material detriment, as he thought.

I then examined the limb. The muscles appeared wasted, the skin was shrunk, rough, of a dull, cloudy appearance, and cold

and lifeless to the feel, giving to me the impression of its belonging to a subject for the dissecting table, much more than of its being part of a living body. The joint was free from swelling, and morbid appearance of any kind, other than those mentioned as belonging to the limb, though exhibiting these in a rather greater degree.

In attempting to move, he put the limb forward with difficulty, and was unable to bear his weight upon it while moving the other leg, so that but for his crutch, he would have fallen to the ground. He said, upon being questioned, that he did not exactly feel pain in attempting to rest upon it, but a sense of distress and weakness, as if the joint would give way should he attempt to trust to its support, as upon trial it actually did. He also said that after walking any little distance, even with the assistance of his crutch, he suffered much upon sitting down, from a dull aching of the joint. After weighing the circumstances a few minutes, I told him that although the case was unpromising, it was far from being hopeless; but that any amendment would be the result only of long and patient perseverance in the use of remedies I proposed to employ; which were, moderately stimulating frictions, showering, or pumping upon the joint with cold and hot water, or brine, electricity, &c. He said that he had just received the same opinion from a distinguished physician at a distance, and as he found that we agreed, he would put himself under my care. I then electricized the limb, by passing a number of smart shocks through the whole of it, and others more feeble in various directions through the joint; and directed him to rub the joint well at night with a liniment of sulphuric acid, olive oil, and oil of turpentine; and in the morning to shower it first with very warm salt water, and immediately after with cold; and finally, to come every third day and be electricized.

This mode of treatment was followed with assiduity for some time, with a gradual through manifest improvement in the state of the limb; as it became stronger, of a more healthy appearance, and natural warmth. As soon as the cutaneous vessels seemed to have in themselves sufficient power of re-action, the warm effusion was disused, and the cold brine alone continued. For the sake of change, other stimulating liniments, with essential oils, were occasionally substituted instead of the acid liniment above mentioned. In December, on account of the inconvenience of riding several miles in the cold, it was thought best to discontinue the electricity till the return of warmer weather; and he was advised to persist in the use of the other means, and in habits of frequent and gentle exercise of the limb within doors. At this time he had become able to lay aside his crutch, and

could, without inconvenience, walk a distance of twenty rods with the help of a cane only.

In April he came again, having apparently gained no material advantage during the winter, but having lost none of what he had formerly acquired. The application of electricity was again resumed, and was repeated four or five times a week, to the amount of about sixty smart shocks through the whole, and from a hundred to a hundred and fifty lighter ones in various directions round and through the joint, at a sitting. This treatment has been continued till the present time, and the patient may be said to be nearly recovered. The limb is now of a healthy appearance and warmth. The cane has for some weeks been laid aside entirely, the patient can walk slowly with but little appearance of lameness, and for a fortnight past has been able to assist his father in the labours of his farm. Considering the helpless state to which he was reduced, and the length of time for which it had lasted, it appears to me that a great deal has been done, and that there is reason to expect, with a due perseverance in the use of the same means, that the cure will be complete.

As to the nature of the affection, I do not feel able to speak with any certainty; my own opinion was, that it consisted in a relaxed state of the ligaments, feebleness of the circulation, particularly in the extreme vessels, torpor of the nerves, and consequent want of energy in the muscles. How this state was brought on, I cannot satisfactorily explain; but on the supposition of its being such, I formed my plan of treatment, the success of which has been stated. Electricity seems to have been the prime agent in what has been done, though much benefit was undoubtedly derived from the auxiliary means; and the good effects derived from a long perseverance in it, seem to be at variance with the opinion entertained by Franklin, and others since, particularly Dr Cooke, that where it did not relieve soon, little was to be expected from its continuance. The shocks which I gave were sufficient to excite a convulsive start in the whole limb; and the rule which I followed, was to make them as strong as the patient could bear without pain.

Charlestown, (N. H.) July, 1823.

Case of Hydrophobia, from the bite of a Raccoon. By GEORGE RUSSELL, M. D.

[Communicated for the New-England Journal of Medicine and Surgery.]

THE subject of this case, was a boy eleven years of age, living in this town. On the 16th of October last, while going from

his place of residence, about half past six o'clock in the evening, he was attacked by a raccoon, in the open field, and without any provocation. When he first saw the animal, he was at about a rod's distance, and on the opposite side of a fence. He immediately sprang through the fence, and caught the boy by the thumb of the left hand. All his efforts to extricate himself from the animal were ineffectual; and he dragged him a considerable distance. The cries of the boy, however, soon brought to his assistance two men, who succeeded in compelling the raccoon to relinquish his hold. This was done by seizing him by the throat, and suffocating him. They immediately killed him by cutting his throat with a pocket knife. The thumb, and skin, and muscles between the thumb and fore-finger, were considerably lacerated. The wound was dressed by some one of the family, and was nearly healed when the disease commenced. The boy manifested no indications of unusual indisposition, till the forty-second day from receiving the wound; when he was attacked with wandering pains, extending from his hand to his shoulder, neck, and head, and sometimes to his back. The family were not alarmed, but thought the pains were rheumatic, as they considered him as having an hereditary disposition to that disease. The next day he complained of universal distress; a sense of suffocation, and an inability to swallow liquids. The family were not now alarmed; and as the vulgar are always ready to assign a cause for every indisposition, especially in children, they thought these symptoms were occasioned by worms, and they attributed the sense of suffocation to a worm's rising in the throat. Accordingly they went through the whole routine of anthelmintic nostrums in domestic use. All these were, however, ineffectual; and on the fourth day of the disease they sent for me; 'thinking,' as they said, 'I might employ something more powerful than they had done for worms.' I saw him about 10 o'clock the same day, and immediately apprised them of his real situation. He was then affected with most of the symptoms usually attending the last stages of hydrophobia. He had not slept for three nights; his pulse were about 100; there was an universal irritability of the system, with a sense of suffocation, and stricture of the throat and chest; a continual spitting of a thick, frothy, tenacious saliva; an inability to swallow liquids; an unusual wildness of the eyes, and ferocity of countenance. He had had no evacuations from his bowels for three days; his intellect was at times deranged, and he manifested a disposition to strike, but not to bite, persons who attended upon him; his thirst was insatiable, particularly for water; yet when presented him, he was unable to drink, and it produced immediate convul-

sions ; the sight of water did the same. I considered the disease at this time as incurable. I administered opium in large quantities, but without any effect. I saw him about 3 o'clock, P. M. of the same day. All the symptoms before described, continued in an aggravated degree. Together with these, there was an almost continual vomiting of a thick, bloody, porraceous matter ; great prostration of strength ; a quick, but feeble, intermitting pulse, and coldness of the extremities ; a redness of the tunica conjunctiva, with a cadaverous countenance ; almost continual convulsions ; tongue perfectly clean, but unusually red. These symptoms continued till about 1 o'clock, A. M. of the following day, when death occurred. An examination of the body after death was not permitted.

Lincoln, (Mass.) Nov. 1822.

Case of Ruptured Uterus. By J. BIGELOW, M.D.

[Communicated for the New-England Journal of Medicine and Surgery.]

MRS ———, aged thirty five, mother of six children, was taken in labour September 3, 1823. Her last confinement had taken place two years and a half before, and was laborious, owing to a face presentation. I now saw her at 9 A. M. at which time her pains were beginning to assume a regular form. They had been felt for some hours in front only, but now extended to the back. They increased in force till about 12, when the membranes broke. From this time the pains were regular, but not very forcible, and attended with cramp in the thighs. At 2 the head had reached the os externum, and its delivery was speedily expected. Every thing seemed favourable, and there had been no unusual complaint or consciousness of injury on the part of the patient. From this time the pains *gradually* abated, still, however, acting sensibly on the head, which advanced and receded as usual, and remained as low as ever. About 3 P. M. the pains had ceased to recur, and the patient, at her own suggestion, was placed in an erect posture for a short time ; no pains returning she was urged to return to the bed. There had been nothing unusual in her sensations, nor any consciousness of harm having befallen her. I now found her pulse, which had been growing feeble during the last hour, become more small and exceedingly frequent. Deeming it necessary to give artificial aid, I sent for forceps, and requested a consultation : Drs Warren and Randall were called. When these gentlemen arrived the head still remained low, but receded and passed upward dur-

ing the examinations made preparatory to instrumental assistance. It was found impracticable to apply the forceps, and the receding of the head, and the appearance of an irregular tumour on the left side of the abdomen, made the nature of the case no longer doubtful. It was now deliberated whether to proceed to artificial delivery, but the alarming signs of prostration exhibited by the patient, rendered it probable she would die under the operation, and that in any case she could not long survive. It was therefore determined to give an opiate and cordials, and to await the future. After two hours rest, during which the patient had no suffering of consequence, the pulse became more steady and less frequent, and the strength was thought sufficient to admit of artificial assistance. The head still remained in the vagina so as to be attainable by the finger, and the breech and lower extremities could be distinctly felt through the abdominal integuments. Delivery was resolved on. The forceps and crotchet being found of no use, the turning of the child was performed by Dr Warren with the following circumstances.

On passing up the hand to seize the child, the edges of the rent in the uterus did not present themselves in a conspicuous manner, and the hand was first arrested by the upper part of the os sacrum. Then passing the hand upward, the head of the child was felt on the left side of the abdominal cavity, the face downward, and looking toward the middle of the abdomen. The hand was now carried along the body of the child to the right side of the cavity in search of the feet; the right foot was found and brought down; but the body did not follow. The other foot being sought for was found with difficulty on the right, and in the posterior part of the abdominal cavity; and being discharged from the situation where it appeared to be blocked up by the hard, contracted uterus, it was brought to the left of the abdomen, parallel to the other limb. In performing these manœuvres some caution was required to avoid injuring the intestines, which occasionally interfered by falling over the hand. The pulsations of the aorta, and the vessel itself, were distinctly felt at various parts of the operation. After the left leg was obtained no difficulty occurred in bringing the child down, and extricating it from the pelvis.

The child being delivered, search was made for the placenta. The cord being traced beyond the vagina was observed to turn suddenly over the os pubis, and the placenta was found lying loose in the anterior and collapsed portion of the abdomen. I found no difficulty in removing it, as no adhesion appeared to remain. No external hemorrhage followed the delivery, and the contracted uterus was felt through the integuments in its usual hard, solid state. It is worthy of notice, that although the fun-

mus of the womb contracted to a solid ball before the child was taken from the abdomen, yet that the portion below the rupture did not contract at all, nor was the egress of the child or placenta impeded by any constriction of the fissure. The rent was in the posterior part of the womb, and doubtless at or near the cervix.

The delivery occupied nearly half an hour, during which time the patient remained very feeble, with a tremulous pulse and cold extremities. Cordials were given repeatedly, and at the end of two hours she was considerably revived, and passed a tolerably comfortable night complaining only of pain in the right hip.

September 4.—The patient was stronger, composed and easy except occasional pain in the hips. Pulse 130—140, small. Cordials continued, with opiates and light nourishment. The abdomen covered with blisters.

— 5th.—Pulse about 120, stronger; pain in the hips increased; tongue white. Took *Magnesiae sulph.* 3ii. every two hours, aided by injections, till a free evacuation of the bowels took place. The patient expressed relief, and confidence of recovery. Blisters dressed with mercurial ointment. This day the patient without the knowledge of her friends, prevailed on the nurse to raise her erect, and change all her clothing. The effort was followed by fainting and great exhaustion. She appeared however to recover her former state until about 4 P. M. when vomiting began to take place. A watery fluid tinged with bile collected in the stomach, and was thrown off every half hour. Nothing was found capable of suspending this symptom, until the next day at 3 P. M. when the patient died.

The circumstances most worthy of notice in this case are,

1. That the rupture did not take place from any extraordinarily forcible efforts of the uterus, since the presentation was natural, the child of middling size, and the pains less violent than they had been in a previous preternatural labour. The patient also was not conscious of any sensation of violence or rupture, and the symptom of cramp in the thighs had been equally felt in her previous confinement.

2. The rupture must have taken place gradually, since the pains did not suddenly cease, but abated by degrees, the uterus continuing to act upon the child for some time after the rupture had probably commenced.

3. Although the fundus of the womb contracted into a hard ball when the child escaped into the abdomen, yet the portion below the fissure or immediately about it, did not so contract, but gave free passage to the hand, and afterwards to the child and placenta.

REVIEW.

ARTICLE X.

Monographie des Dégénérationes Scirrheuses de l'Estomac, Fondée sur un grand nombre d'observations recueillies tant à la Clinique interne de l'Ecole de Médecine de Paris, qu'à l'Hôpital Cochin. Par FREDERIC CHARDEL, D. M. Médecin par interim de l'Hôpital Cochin, Médecin de bienfaisance du deuxième arrondissement de Paris, Membre de plusieurs Sociétés savantes.

Και τῆς ἀποθανεῖν τε καὶ
σώζοντομεν πρόγνωσθαι τε καὶ
προαγορεύειν, ἀναίτιος ἂν εἴη.

ΙΠΠΟΚΡ. Πρὸς γ. Αφερ, ε.

A Paris, 1808.

THIS is a valuable addition to the pathology and morbid anatomy of the stomach. The volume consists of cases and remarks. M. Chardel has paid much attention to the symptoms which scirrhus of different parts of the stomach gives rise to, and to the appearances after death. He treats the subject under three general heads, and his arrangement is derived from the part of the stomach which may be the seat of the disease. In the first article, we have scirrhus as it attacks the cardia. In the second, scirrhus of the body of the stomach. In the third, scirrhus of the pylorus. The causes are next mentioned, and remarks offered on some connected subjects. The volume closes with the diagnosis of the disease, some reflections on the treatment, and fuller notices of particular symptoms than had been offered before.

In the preface, after some general physiological propositions, and remarks on the comparative frequency of scirrhus of the stomach, an anatomical sketch is given of the manner in which the disease developes itself. The following changes take place in the textures which constitute the walls of the stomach. The mucous texture thickens, and soon contracts adhesions with the muscular. The cellular texture which separates these and the muscular from the serous, becomes the seat of the degeneration,

and separates, as it becomes thicker, the fibres of the muscular coat, which last, however remain a long time visible. The serous membrane becomes afterwards intimately united to the diseased cellular texture, preserving, however, on its exterior, the polish and brilliancy which distinguishes it. In proportion as we approach the pylorus, our examination having begun where the organ is sound, the stomach becomes thicker, in consequence of the thickening of the cellular texture. The fibres of the muscular coat remain still distinct, but extremely separated, and much paler than natural, even beyond the point where further separation of the coats of the stomach becomes impossible. Finally, the mucous membrane ulcerates.

It follows from these remarks, says the author, that the disease extends itself from the mucous texture, to the neighbouring cellular texture, which becomes the principal seat of the degeneration, and that the muscular and serous coats are but very rarely affected.

Immediately following the preface is an historical notice of the authors who have written on scirrhus of the stomach.

ARTICLE FIRST.

Scirrhus degenerations of the Cardia.

Examinations after death.

CASE I.—Peter Thomas Tourillon, shoemaker, aged 38, of melancholic temperament, first seen 22d October, 1799. His health had always been variable; some years before had experienced violent colics, accompanied by pains in the stomach. Towards the commencement of April of the preceding year, he became sensible, without any known cause, of a difficulty of swallowing, first of salad, some time after of meat, then bread, and at last, all solid substances.

The first mouthful stuck in the œsophagus; when the second followed, both were vomited with pain; after which, he sometimes threw up much glairy matter. By degrees, the least solid food would not pass; at length he could only take soups, and aliments similar to these.

Nothing could be discovered by the touch; the symptoms, and the inefficacy of antispasmodics, led to the opinion that the contraction of the œsophagus was a symptomatic and secondary affection, and to a suspicion of incipient scirrhus in this canal, or towards the cardiac orifice.

Nevertheless, whether the regimen and medicines employed diminished the spasm, or by his courage, his patience, or the efforts he made to swallow, he made out at the end of ten days to swallow almost half a pound of bread at a meal, but he frequently vomited what he had got down. For two months before he enter-

ed the hospital, he had no evacuations without the aid of injections. During his residence in the clinical ward, the constipation was always very obstinate.

The excretion of viscous matter from the œsophagus, increased, and made easier by medicines employed, gave the patient temporary relief. He left the hospital, but in consequence of violent pains in the stomach he returned 25th March.

At this time the former symptoms were present. He experienced constant pain and weight in the epigastrium; his pulse frequent; and bowels moved only by injections. A sensible amelioration in his state again took place. Vegetable food passed the œsophagus well, but animal substances were rejected. At the time of his second leaving the hospital, 13th April, there only remained constipation, and cachectic appearance. This favourable state did not last long, and the same symptoms forced Tourillon to re-enter the hospital the 27th July.

Exhausted by long suffering, and by different relapses, he was unable to give any account of himself. Every thing about him indicated approaching death; he was too feeble to speak; he indicated by his hand, his throat to be the seat of severe pain,—deglutition was almost impossible.

Extreme debility occurred, early in the morning the extremities were cold, the pulse not to be felt, complete aphonia, at noon slight rattling in the throat; in two hours after he died.

Upon dissection, a cyst two inches deep was discovered under the left clavicle, an inch and a half in diameter; it contained about three spoonfuls of pus.

The œsophagus examined interiorly in the part corresponding to the cyst, did not appear diseased; this fact led to the belief that if the cyst had had any effect on the deglutition, it could have acted only mechanically.

The œsophagus presented a scirrhus, the walls of which appeared to be about an inch in diameter; callous ulcers lined the interior of the scirrhus, which extended the space of about four inches, including the superior orifice of the stomach.

The bodies of the dorsal vertebræ situated behind the scirrhus part of the œsophagus, were soft, and in a state bordering on dissolution; the scalpel penetrated them without difficulty; the intervertebral substance was in a state of incipient putrefaction.

CASE III.—A domestic, aged 50, who seemed to have been of a strong constitution, and was of very regular life, was received the 13th November, 1799, into the hospital; he had begun to fall away some years before, but almost insensibly. His mouth was frequently out of taste, appetite gradually failed him, gradual loss of strength was followed by its complete failure; imper-

fect digestion reduced his diet to the lightest food. For four months he was constantly tormented with heart burn, spitting, and nausea. He had many times a day, particularly after eating, vomiting of a glairy saliva; he dreaded excessively to eat, from a fear of exciting these distressing vomitings. He threw up in this way, in 24 hours nearly four pints of a glairy, tenacious, viscid matter, of an acid taste, and which at the last, left the mouth excessively foul.

His symptoms increased. He referred all his pains to the parts situated under the xyphoid appendix; a small tumour could be obscurely felt here by a gradual pressure; constipation was habitual; frequent and violent colic; urine very irregular, the deglutition of fluids difficult.

No other cause could be ascribed for this case, but long and deep mental suffering.

Some temporary mitigation of the symptoms occurred under the use of quieting medicines; but nausea and vomiting recurred the 28th. He expired the 29th, without complaint, without agony, and almost while speaking.

DISSECTION.—An ulcerated scirrhus extended from the cardiac orifice, and from the termination of the œsophagus, over the whole of the small curvature of the stomach; a collection of scirrhus glands composed the tumour superiorly, which, on the side of the cavity of the stomach had somewhat the appearance of the venereal cauliflower, and formed an hideous ulcer, of an acid, and insupportably fœtid odour.

Above, it adhered to the gastro-hepatic epiploon, and was confounded with it—also to the convex face of the liver, and to the pancreas, nevertheless, this gland presented no sensible alteration. The liver offered on the contrary, at the place of adhesion, which was intimate, a large tubercle, of white matter, resembling adipocire; the pyloric orifice appeared perfectly healthy.

There are three other cases of scirrhus of the cardiac orifice of the stomach.

ARTICLE SECOND.

Scirrhus degenerations of the body of the stomach.

Examinations after death.

CASE 1.—A colour mixer, aged between 50 and 60, of a bilious temperament, had for a long time, experienced an uncomfortable and painful weight in the region of the stomach, after eating, and afterwards vomited his food changed only by the greater or less time it had been in the stomach; he was besides afflicted with obstinate constipation. Has never had colica pictorum.

He died after being in the *Hopital de la Charité* two months, without experiencing any other than the above described symptoms. A considerable depression was observed below the xyphoid cartilage.

DISSECTION.—A very large scirrhus, without ulceration, which appeared to be formed of coagulated lymph, extended exclusively from the pylorus, to the small curvature of the stomach, which was almost entirely effaced. The lymphatic glands of this region formed by their union a sort of mammellated tumour; the internal walls of the great curvature, offered rugæ sufficiently numerous, and the intestines many contractions.

Very strong adhesions of the *vesicula fellis* with the pylorus, in the neighbourhood of the duodenum, altered the situation of its neck, which was found very much narrowed.

CASE II.—A domestic, aged 57, of a delicate constitution, for a long time experienced excessive vexation. In the winter of the year 1800, she had suffered from catarrh, accompanied by a dry cough, which nothing quieted. Digestion at the same time was impaired, painful, accompanied by a sense of fulness and oppression at the stomach, from which resulted habitual feeble health, which however did not make it necessary for her to give over her usual manner of living. The bowels were slow.

At commencement of spring, the cough yielded a little, and digestion became worse. It did not merely excite now some slight uneasiness in the epigastrium, but pains, very acute at first, afterwards obtuse, and which continued for a greater or less time after eating. Digestion being over, there was relief. Light food in small quantities occasioned but little trouble. Most purgatives given at this period of the case, occasioned violent cutting sensation, and increased the evil. In the space of four months the patient was purged six times, and took one emetic. The effect of these remedies was constantly to produce severe colic, which continued through the whole period of their action.

Loss of strength soon compelled her to give up labour, and to keep in bed. Pain, without being excessively severe, rarely remitted; sleep much disturbed. Various remedies gave no relief. This was her state when she entered the hospital, 5th of August, 1800.

Two injections procured some relief, and some stools, which had not occurred for four days. Her appetite was good, but she dreaded to satisfy it. To this time nausea had but rarely been experienced, and she had vomited spontaneously but two or three times. On examining the abdomen by pressure, an obscure tumour was perceived in the epigastrium, and pressure gave her pain. She died two days after entering the hospital.

DISSECTION.—A scirrhus formed by a thickening of the superior walls of the stomach, and fulness of the lymphatic glands of the gastro-hepatic omentum, extended itself from the small curvature of the stomach. The tumour was not ulcerated. Simple rugosities covered its internal surface.

The pancreas, very compact and large, appeared to be rough.

White tubercles, hard, and of a greasy aspect, checquered the middle lobe of the liver.

Three other cases are reported of scirrhus of the body of the stomach.

ARTICLE THIRD.

Scirrhus Degenerations of the Pylorus, Dissections.

CASE I. A bricklayer, aged 63, sanguine; lymphatic; healthy father; mother delicate; she died of symptoms of organic affection of the stomach.

He enjoyed uninterrupted health, notwithstanding much mental suffering during the Revolution.

In June, 1801, he was reduced, by being robbed, to extreme indigence, and for three weeks slept in his clothes on a damp floor; other causes of suffering were added to those now alluded to. Towards the end of July, loss of appetite, anxiety in the region of the stomach, and hypochondria, palpitation of the heart, and habitual constipation, began to be experienced. He suffered most after eating, and when he lay on his left side. He however continued at his trade, nor gave up till towards the end of September, 1802. The uneasiness he experienced while the stomach retained the food he had taken, obliged him to limit his daily allowance to about eight ounces of bread, and a light soup, which he took at night, with a small glass of brandy, a liquor to which he had been accustomed before his illness.

He was in a short time reduced to a state of extreme weakness and emaciation; the dejections became more and more painful; at times he vomited at the end of a quarter of an hour, a part of the food he had taken, especially when taken towards night. Its presence in the stomach, caused anxiety, a sense of weight in the epigastrium, of pain in the left hypochondrium, and palpitations of the heart. Wine and sugar candy seemed to pass with more ease than any thing else. His sufferings constantly increasing, he was admitted into the hospital, 23d October, 1802.

He presented an emaciated body, wan countenance, eyes brilliant, and moist, deeply sunken into their orbits. The skin nevertheless was of its natural colour; the pulse slow and prompt, had some beats more frequent than others. The epi-

gastrium, very tense, presented towards its right inferior part, a small oblong tumour, which extended from the cartilages of the false ribs to the neighbourhood of the umbilicus. Although this tumour gave habitually no trouble, it was very sensible to the slightest pressure, while the left hypochondrium, the ordinary seat of pain, might much more easily be examined. The parts of the abdomen below the umbilicus presented nothing remarkable; the muscles appearing merely a little contracted. He was constipated; urine clear and abundant.

Food taken towards evening, was quickly followed by a sense of uneasiness, anxiety, and of weight in the inferior part of the epigastrium, and of general weakness. This sensation seemed afterwards to rise a little, and to go to the left, in the hypochondrium—at that time violent and lancinating pains occurred in this region, with palpitations of the heart. About half an hour after, a part of the food was vomited, mixed with pituitary matter. The rest of the night tranquil.

A quieting potion taken every evening, seemed to produce good effects. The vomiting ceased after some time; he could sleep on his back. He thought he was getting better and better, when 9th January, in the morning, he was found dead in his bed, without any one near him, knowing the symptoms which attended death. Some days preceding, the pulse had been small, and intermitting.

DISSECTION.—The stomach appeared sound on the exterior, but so large that its lower third was almost entirely in the right hypochondrium; it was also of an extraordinary weight.

A scirrhus of the mucous membrane occupied almost entirely its inferior third part, which formed a sort of tunnel, or hollow cone, at the summit of which was found the pylorus, almost obliterated.

This scirrhus of a compact texture, of a yellow, or dirty white colour, unequal and rough, but not ulcerated, appeared of a greasy nature.

CASE II.—A dyer's wife, aged 67, perceived towards the middle of February, 1800, pains in the epigastric region, and after severe mental suffering from the death of a child, had spontaneous vomitings. Before this she had enjoyed perfect health. Fever followed, and she was obliged to enter the hospital, where she got an emetic, and other medicines. She went out some time after, but as the pains in the stomach, and vomiting, had not ceased, she entered the Charité, the 14th March following.

The touch discovered nothing uncommon in the region of the stomach. Some time after eating, she vomited without effort what she had taken. Frequently she did not reject what she had eaten one day till the succeeding day. Stools were very rare.

Some tranquillizing medicine, and milk diet, were prescribed. Milk agreed very well. 24th, Had a dejection. An antispasmodic potion taken on the 26th, produced sense of heat in the stomach. On 28th, a grain of opium was substituted. The two following days she had alvine discharges, and no vomiting; but the latter occurred at the beginning of April, and continued since. Constipation. Matters vomited frequently of an acid taste. Strength failed more and more, hectic ensued, and she died, the 27th.

DISSECTION.—The body like a skeleton covered with skin. Stomach so large as to descend in its great curvature to a level with the crests of the ilia. The pylorus was thrown towards the lumbar vertebræ. It appeared hard, thick, and larger than natural. Its orifice was only a slit, which might be compared to the os tinæ. The small intestines, and the cœcum, were found in the pelvis, behind the uterus.

CASE III.—A locksmith, aged 57, experienced for more than four months since, acute pains in the epigastric region, frequently followed by vomiting, and accompanied by constipation. He nevertheless continued at his trade. At length worn out, and no longer able to contend with his sufferings, he entered at the Charité 21st October, 1796. Marasmus was already considerable. The touch detected towards the epigastric region, a tumour of very great extent. The vomiting seemed diminished by remedies. But the pains at the stomach, the colics, and slowness of the belly underwent no change. The pains were moderated by injections and other slight means, a cathartic, mineral waters in milk, gently purged. The vomitings then ceased suddenly for some time. Notwithstanding this amelioration of affairs the strength diminished daily. The symptoms soon returned. Opium was given to render inevitable death more gentle. He died 12th November.

DISSECTION.—A very large scirrhus, but not ulcerated, occupied the pylorus, the orifice of which, singularly contracted, could not give passage to the smallest morsels of the lightest food.

There are ten cases of scirrhus of the pylorus.

Causes of Scirrhus Degenerations of the Stomach.

These causes are by no means evident. In general they may be referred to the three following principles:

1. Mechanical irritations.
2. Chemical, or animal irritations.
3. A particular state of the lymphatic system.

Under the first head of causes, the author notices the various professions, or trades, under the exercise of which a constant pressure is made on the epigastric region; the morbid enlarge-

ment of certain viscera in the neighbourhood of the stomach, which make them act upon it like foreign bodies; blows, falls, &c. He deduces from his cases, in relation to this head of causes, the following: 1. That scirrhus degenerations of the stomach are found distributed, with a sort of equality, among the different classes of artisans, without regard to their profession; 2. That the regions of the stomach least exposed to pressure from foreign bodies, are the most subject to scirrhus; viz. the cardia, the small and great curvature of the stomach, and especially the pylorus, which it affects from preference. He considers this class of causes as acting not directly upon the organ, to produce organic changes; they act first upon the integuments of the abdomen, and would rather seem to produce their effects by disturbing the functions of the stomach, than by a mere mechanical impression. A case is given in which pressure seems to have produced very decided effects, both upon the abdominal parietes, and the stomach. A hatter, who in working the hats, had his abdomen constantly pressed against the edge of an inclined board, presented himself at the Hotel Dieu, with a tumour situated in the epigastric region; a gangrenous eschar occupied the centre of this tumour; the eschar being opened, a quantity of putrid matter, mixed with alimentary matters was discharged.

He died some days after this operation. Dissection discovered, that the anterior part of the stomach, having become scirrhus, had contracted adhesions with the abdominal parietes, and had become cancerous.

Chemical Irritants.—These act by producing various degrees of irritation, of inflammation, or an increased determination to the organ, which in the end may produce permanent congestion. An instance is given in this place of the injurious and fatal effects of preparations of mercury employed by a patient for the case of simple gonorrhœa. On examination, the pylorus was found hard and contracted, and in its neighbourhood a small ulcer; the internal face of the stomach was spread over with a multitude of bodies of a glandular appearance. Spirituous liquors have been thought a very common cause of scirrhus of the stomach, and Stall cites many instances. M. Chardel, however, is disposed to think that spirits very rarely produce this disease.

Animal Irritants.—‘I understand by animal irritants, the different morbid humors which are engendered, or developed in the human body.’ p. 89. The author on this head enters into the discussion of the question of metastasis of pus, and the alleged effects of such metastasis. He inquires respecting the recurrence of local diseases of a malignant character, after being artificially removed, either in their original places, or in similar

structures in the neighbourhood. He gives a very interesting case, in which malignant disease appeared in the female breast, and was removed. The part healed firmly, but a similar disease took place in the axillary glands. These were removed, and the part healed perfectly. A succession of similar events occurred, and the patient at last died. The question remains, how far the state of the fluids is concerned in these effects, and how far they are owing to sympathy, or to the accidental determination of blood to particular organs, during that state of the fluids, which at times follows the suppression of habitual discharges.

Particular state of the Lymphatic System.—Under this head of his subject, the author is more definite. From the fact that scirrhus of the stomach is rarely a purely local disease; that a similar disease attacks the other abdominal viscera, possessing textures like those of the stomach, and presents similar organic changes; considering farther the subject of these diseases, the indigent, the lower classes, exhausted by their professions, their modes of living, and habits, M. C. is disposed to find in a morbid condition of the lymphatic system, a cause of the disease in question.

Remarks.—M. Chardel would have classified scirrhus of the stomach according to the particular alterations of the different textures which compose this organ, had these alterations been so far modified by the textures or their properties, or the phenomena which scirrhus in either gives rise, as to have furnished the elements of such a classification.

In a note we have the following. ‘Scirrhus degenerations of the stomach are generally presented under three forms :

1. Tuberculous state of the neighbouring epiploic glands of the stomach, which are confounded with a portion more or less extensive of the diseased coats of this viscus.

2. The peritoneal coat, has exteriorly the polish which distinguishes it, we can only say that from the lymph is effused within the thickness of the coats of the stomach, that which gives to an incision into them, an appearance similar to the white of egg hardened by fire, and forms in them a tumour more or less bulky.

3. Flabby, or hard vegetations, proceeding from the mucous membrane; if at the same time, the peritoneal coat is altered, it seems to be merely secondarily so.

Scirrhus degenerations of the stomach may present at the same time these three kinds of alterations.’ pp. 106, 107.

The tuberculous degeneration of other abdominal viscera, says the author, so frequently accompanying scirrhus of the stomach seems to show an analogy between these affections, and

teaches that this scirrhus is not of the nature of cancer, the tubercles being a disease totally unlike the latter. The acute pains which accompany cancer, are not experienced in the greater number of cases of scirrhus of the stomach. Pressure may be made over the part diseased without the patient's manifesting extreme sensibility. But when the disease affects principally the mucous membrane, the more the action develops itself, the greater are the pains excited; it imitates more the progress of cancer. It is still this membrane which alters at first in the scirrhi of the other coats of the stomach, at the time when the pains become the most acute; it is equally in this order of texture that the non-encysted tuberculous degenerations make the most rapid progress. Cases follow in which ulcerations of the stomach were found on dissection. In some of these, partial, and in others entire perforations, of the coats, had taken place. These cases differ from those of spontaneous openings in the stomach recorded by Cruikshank, and others. In the latter no vomiting of alimentary matters is stated to have occurred, nor the other symptoms in the cases of Chardel. In Chardel's cases, although the walls of the stomach were gone, the openings were closed by adhesions which had taken place with neighbouring viscera, and the contents of the stomach were thus kept from passing into the abdomen. The probability is, that in all these cases adhesion was an early process in the disease, and that the portion of stomach found wanting on dissection, had been removed by ulcerative absorption, aided by the pressure of the enlarged parts.

Of Scirrhus Degenerations of the Stomach in general.

Three periods may be observed in the disease, though death frequently occurs before they have all been passed through.

The first period embraces the commencement of scirrhus; the second, the confirmed stage; the third, that of ulceration. These periods, as might be supposed, have no determinate limits; years may pass in some cases before death happens, while in others a few months are sufficient for the fatal development of the disease. In general, it is in the first period only, that it seems to be stationary. This being passed, the others go on with such rapidity, that they occupy less time together than the first. Fever rarely occurs. At the close, when ulceration takes place, and the disease advances more rapidly than common, active inflammation occurs.

The symptoms of each of the periods are very minutely detailed, and it is here the author discovers that talent for observation and description, which distinguishes the medical writers of his nation. We must condense his account of the first period into a

paragraph. Its symptoms are those of acute dyspepsia, the stomach being excessively irritable, and much relieved by vomiting; the appetite being either undiminished, or even unusually craving. In the second period, the general effects of the first are manifest, and some new symptoms appear. The patient is emaciated, and a tumour may be detected in the epigastrium. Quieting medicines, and a very mild diet, or milk, or broth, may even now retard the progress of the disease. The symptoms grow more severe; constipation is more obstinate, but the tongue may continue clean, and the appetite unimpaired.

The third period is marked by extreme emaciation, and with pain in the epigastric region of a more permanent character. The matter vomited is changed. Instead of being acid in taste and smell, it has an odour sometimes insupportable. It resembles soot mixed with a viscid fluid; the dejections resemble the same thing, and may consist of this substance entirely, if the ulcer is very near the pylorus. All this may happen even before the pains have increased. The breath becomes fetid, the mouth sore, but the tongue still continues natural. Towards the last, diarrhoea may take the place of constipation; it is not rare for vomiting now to cease, the stomach having lost all power. Death is tranquil.—Such says our author is the progress of scirrhus of the stomach. In some particular cases, vomiting, the principal symptom, is wanting, as well as many others. Cases are given in which some of the more ordinary symptoms of scirrhus were wanting, while those of diseases of other viscera were manifest. Dissection discovered the stomach to have been primarily, and only diseased.

Do schirri of the stomach furnish any signs characteristic of the place they occupy? Scirrhus of the pylorus has no such signs, that of the cardiac orifice offers some particular characters.

1. Difficulty in swallowing solid and even liquid food, greater or less, according to the degree of contraction of the cardia.
2. When scirrhus of the cardia prevents the descent of food into the stomach, it is rejected much sooner than in other scirrhi of this organ, and even almost at the instant it is taken.
3. A sort of vomiting of a viscid saliva.
4. No tumour in the epigastrium; the touch discovers none, and is more easily borne than in other scirrhi of the stomach. In the last stages, if the swelling is extended to the neighbouring parts, it may possibly be perceived, but obscurely.

Diagnosis.—Scirrhus of the stomach may be confounded with other affections of this organ. Spasmodic vomiting is first mentioned, as among these. This affection may imitate scirrhus

very exactly. The black vomiting, which so frequently occurs in ulcerated scirrhus, at times occurs in this disease, and renders the diagnosis very difficult. What furnishes the best means of distinguishing these affections, is the effect of treatment, or their modes of termination. Scirrhus is a fatal malady. Under a proper treatment spasmodic vomiting will cease, and the alarming symptoms which attend it gradually disappear. The treatment which appears to have done most good in the cases in this work, was in a measure external, consisting of repeated vesication over the stomach and abdomen, and various stimulating and anodyne embrocations. Opiates seemed to have done but little good in the colic, which was a most obstinate attendant on spasmodic vomiting. Injections and laxative medicines by the stomach, and especially the former were always demanded, and very useful.

There are other causes which may produce vomiting, and some other symptoms of scirrhus of the stomach. Among these M. Chardel enumerates, disturbances in the catamenial function; calculus in the ureter, hernia of the stomach, and slight chronic inflammation of the mucous coat of this organ. A very interesting case of hernia of the stomach is given at length. The hernia here took place, between the fibres of the recti muscles, near the xyphoid cartilage. It was produced by great exertion in dancing, the body being very erect and the shoulders thrown forcibly back at the time. The hernia had existed two years when M. C. saw the patient. Various means had been employed to relieve the vomiting, constipation, and other symptoms, but without any good effect. No one suspected the existence of the hernia. The patient, a young surgeon, while at Paris, where he had come for medical aid, was led to attend M. Chardel's lectures on operative surgery. Hernia of the stomach was the subject of one of these lectures. The patient was struck with the resemblance between the symptoms of his own case, and those mentioned by the Lecturer. He was satisfied that he was suffering from hernia of the stomach, and at once applied a bandage after the manner of M. C. The relief was perfect. 'This bandage had such success, that, an hour after its application, the patient had a natural evacuation from the bowels, he slept all night, and all the symptoms of his disease disappeared.' He made M. C. a visit a few days after, and was examined. The hernia when the bandage was taken off, would return on the slightest movement. Some slight alterations were made in the bandage, and under its use, the fibres of the muscles resumed their natural situation in a degree which promised a complete cure.

General reflexions on the treatment of scirrhus of the stomach. This is the last article in the volume, and is the shortest. When the disease has taken place, all that remains for the physician to do, is to render the sufferings of the patient as slight as possible. The disease is incurable. Something may be done towards prevention. The means for this differ in no respect from those ordinarily employed to restore the healthy functions of the organ. Perhaps more may be done to retard the progress of the malady, especially in its first period, and at this time, and for this purpose, it is probable that as much may be done by a very exact attention to diet, and by avoiding all exposures, as by medicine.

M.

ARTICLE XI.

Report on the Yellow Fever which prevailed in New York in 1822. In a letter to his honour the Mayor of New York.
By JOSEPH BAYLEY, M. D. Health Officer of the Port of New York. *New York, Dec. 1822.*

THE great majority of our professional readers are probably weary of the discussions that have taken place from time to time upon the question of the contagious nature of the Yellow Fever, and are well satisfied that most of the controversies on the subject have led to any thing rather than useful and profitable results. They cannot however reproach us with having devoted many of the pages of this journal to the examination of this topic, though our opinions have never been wavering or unsettled on the point; but the physicians in this quarter of the country are fortunately well agreed as to the origin and nature of Yellow Fever and there of course seemed to be less necessity for our embarking in a controversy which has never been distinguished for the good temper with which it has been conducted. We have however taken some occasions to state our views explicitly and at some length, and we have now no hesitation in declaring that our increased experience and the annual accumulation of facts have confirmed us in the opinion that the Yellow Fever is not a contagious disease. We do not deem it necessary to enter at great length at the present time into a defence of this opinion, nor should we have called the attention of our readers to the subject at all, were it not for the purpose of examining the Report of Dr Bayley the Health Officer of New York to the Mayor of that city, in relation to the Yellow Fever of the last season, as we firmly believe that the history of the disease at the period alluded to, will ever be cited as affording the

strongest proof of its domestic origin and non-contagious character.

This report is to be found in the 4th No. of the New York Medical and Physical Journal and seems to have been written with a strong desire to show that the disease was imported and, we presume we may say, of course contagious. Dr Bayley commences it by examining the reputed sources of the disease of that season, which he divides into three classes; 1st. the arrival of vessels from unhealthy ports at 'the wharves at or near Rector Street,' the centre of the pestilence; 2d. the local nuisances in that vicinity, and 3dly the arrival of lighters from the quarantine ground loaded with boxes of sugar, being the cargoes of vessels that had arrived from sickly ports and been unloaded by direction of the proper authorities. In regard to the first supposed cause, he enters into a detailed statement of facts, from which he concludes that the disease did not arise from this source. We agree with him most perfectly in this conclusion, though not for the reasons which seem to have led him to it, which are, because no individual had been affected with the disease on board of any of these vessels during their passage, and because a great degree of health prevailed at the foreign ports at the time they left them. What leads us to the belief is simply this, that it is not shown that any of the vessels were foul at the time of their arrival at the wharves of the city from a bad state of their cargoes or any other cause.

The Doctor is quite as confident that the local nuisances did not produce the fever, because they were not greater if so great in the vicinity of Rector Street as in some other parts of the city which were exempt from the disease. In examining his reasons for believing in the introduction of the fever from the third reputed source, we shall take occasion to speak of the probable effect of the local nuisances and notice some facts and coincidences which appear to us very remarkable. After disposing of the two first supposed causes of the epidemic, he proceeds to the examination of the third. It appears from his statement 'that 2730 boxes of sugar were transported in thirty-four lighters from several sickly Havana vessels, (and those not sickly were navigated by persons who had made frequent voyages to that port) between the fourteenth of June and eighth of August, and landed at the wharves, within the limits of one hundred and twenty yards on each side of Rector Street;' but the first cases of the fever did not occur till the 11th of July and according to the opinion of many of the physicians not till the 8th of August, for those which appeared at an earlier period were denied by the Resident Physician to be Yellow Fever, for no other rea-

son that we can discover than that he was unable to trace them to any foreign source, and of the 2730 boxes of sugar which arrived between the periods stated above, 2370 of them arrived before the 9th of July, and it does not appear that any individual who was concerned in unloading the vessels, loading the lighters or in transporting this pestilential sugar was ever affected with the slightest symptoms of the epidemic, we have a right to infer this from the silence of Dr Bayley upon this point, as he no doubt would have rejoiced to have availed himself of any fact of this kind if any such had existed. Besides, 1565 boxes of sugar and 497 hhd. of molasses were conveyed in the same way from vessels of a similar description to other parts of the city within the same period, where no traces of the disease appeared. The * first subjects of the fever were two little girls of eleven and nine years of age, who resided in Rector Street in the immediate vicinity of a cess-pool connected with a drain, which had become so much obstructed as to require cleaning out, and this had been done a few days only prior to their attack. The water and filth removed at this time were thrown into the street and many of the inhabitants in the neighbourhood complained of the fetor arising from them. In addition to this, the gutters in that vicinity were said to be in a very foul and unwholesome state, and several large sinks that were extremely filthy had been cleaned out in the early part of July. Much has also been said of the noxious effluvia arising from the grave yard attached to Trinity Church, and many have spoken confidently of its influence in generating the disease of that season. But we are not sufficiently acquainted with the facts in relation to the state of that yard at the period referred to, to offer any observations upon the subject, nor should we feel prepared to express an opinion as to the power which exhalations from decomposing animal matter might have in producing the epidemic in question. But we would ask, were the first victims of the disease such as might have been expected if it had originated from the removal of the sugar, or would not its ravages in all probability have been confined in the first instances at least to those concerned in that employment?

During the whole period of the prevalence of the epidemic there was not a single case that could not be distinctly traced to the infected district, numbers, who had been exposed to its impure atmosphere, sickened and died in other parts of the city and the neighbouring country, surrounded by their friends and

* For this and some other important facts we are indebted to a valuable paper by Dr. Walters, published in the same Journal.

attendants, and the disease was in no instance communicated in this way to a single individual. One person in fact after having been exposed to the noxious causes in the vicinity of Rector Street, came to this town, lodged at one of our largest Hotels, filled at the time with persons from all parts of the country, and there sickened and died of the Yellow Fever, he was constantly watched and attended in a small and badly ventilated apartment, but no one was in the slightest degree affected by his sickness. With the strongest disposition possible to prove that the disease was imported, Dr Bayley is unable to show that a single case can be traced to the landing of the sugar near Rector Street, or assign a single reason why if the sugar were the cause the fever did not make its appearance at an earlier period than the 9th of August (for he, we believe, does not acknowledge the cases that appeared prior to that to have been Yellow Fever) as some of it was landed as early as the 14th of June, or why it should be confined to one portion of the city, when sugar from vessels of a similar character was landed in various other parts of it.

We cannot conceive how, with all these facts staring him in the face, Dr B. can for one moment believe that there was any possible connexion between the appearance of the disease and the landing of the sugar. And yet he tells us very gravely that 'the lighters were generally loaded before noon, at which time the weather was frequently calm, consequently the infected air adhering to those boxes could not have been completely driven off in passing them from the hold of the vessel to the hold of the lighter. The heat of the weather in the shade at Staten Island, between the twenty-eighth of June and ninth of July, was above eighty degrees at two P. M., and upwards of seventy-seven at eight A. M. and six P. M.; and for the whole period between eight A. M. and six P. M. the average was more than seventy-eight degrees.' We must confess that we do not consider these facts to be highly important or to have a very direct bearing upon the question, nor do we think that they will warrant the inferences the author has drawn from them. He proceeds to observe that 'it has been erroneously stated in some of the public prints that it was my opinion that the pestilence had been conveyed in boxes of sugar. I never entertained such an idea; but I conceived it possible that infected air, shut up in the hold of a vessel during a West India passage, would as readily pervade, and be retained in the spongy texture of rough pine boards, of which those boxes are made, as the more dense structure of smooth oak planks, of which vessels are built.' Now we really think that the Doctor has no right to complain of the opinion im-

puted to him, and whatever he believes to the contrary, it certainly appears to us to be but very little if any more extravagant than the one for which he contends so stoutly.

We very much doubt whether the advocates of contagion were not staggered by some of the circumstances connected with the fever at New York the last season, and the Resident Physician in fact, as firm a believer in the doctrine of contagion as that city can boast, and we know not how we can express ourselves more strongly, observed during the prevalence of the epidemic that 'the cause or causes, which at first were only sufficient to produce bilious fever, have now become so concentrated as to create yellow fever.' This is an explicit acknowledgement that the yellow fever differs from bilious fever, a common endemic of some parts of our country of acknowledged domestic origin, only in degree, that it is produced by the same causes and of course has not a specific character, as it must have if it be contagious.

To us it appears to amount to something almost like demonstration that the disease could not have arisen in the way which Dr B. has supposed, admitting the statement of facts he has made to be perfectly correct in all its parts. It is not for us to explain the cause of the disease of that season, it is enough for our purpose if we have shown, that the only foreign source to which it has been imputed was insufficient to account for its appearance and that of course it must have originated at home. We would however remark that we doubt whether the local nuisances were capable alone of generating the epidemic, but apprehend that there must at the same time have existed that peculiar atmospheric state, which has been well enough perhaps designated by the name of an *epidemic constitution of the atmosphere*. We are entirely ignorant in what this peculiar state of the atmosphere consists, but that it really exists seems probable from the circumstance that the same exciting causes, such as effluvia from decomposing animal or vegetable substances, are innoxious for the most part in winter and during some states of the atmosphere even in warm weather, but are productive of a highly malignant and fatal disease during others. It has usually been found to exist during the prevalence of epidemics, operating powerfully on the human system and predisposing it to the prevailing form of disease in preference to any other. We would not however be understood to say that this state of the atmosphere is alone sufficient to generate the Yellow Fever, we consider it merely as a predisposing cause, which would be inoperative without the agency of an exciting cause, the most frequent certainly of which, to say the least, is the effluvia from decomposing substances. In this view of the subject, the epidemic in question is the result of the combined action of these two causes.

Another circumstance in favour of the opinion of the agency of the atmosphere is, that the disease denominated the Yellow Fever when it appears in our country, is not confined to one or two cities only of the United States, but cases of it occur in various parts, between which there has been no communication by which the disease could be traced from one to the other. This was remarkably the fact in the year 1819, and what was very singular respecting the epidemic of that season was, that the first cases of it occurred in Boston about the first of July, and our Southern cities were not visited by it till a much later period, though it occurred in almost every one on the continent from this place to New Orleans. There was something peculiar in the atmosphere at that period; there was a great degree of heat and moisture combined, and though there were frequent and copious showers, they did not remove that hot and oppressive state of the atmosphere, which seemed to be in some way connected with the prevailing epidemic.

The single fact of the occurrence of this disease at one season of the year only is a sufficient proof, one would think, that it is a disease of season, connected with some peculiarity of climate and soil, rather than the result of specific contagion.

It is often, though we think erroneously said, that the question of the domestic origin of the Yellow Fever is of but little practical importance; we are of opinion on the contrary that a thorough investigation of the subject, leading as we have no doubt it must to the conclusion that the disease is generated amongst us, would be attended with the greatest benefit to the community. While so large a portion of our citizens are looking abroad for the sources of that pestilence that so frequently wastes and desolates our cities, while they are hampering our commerce with useless and vexatious restrictions, they entirely overlook the seeds of the mischief, which might have been removed if earlier known.

There are some points of minor importance in the Report of Dr Bayley which we should have noticed, were not this article already extended much beyond the limits we had originally prescribed to it. We must confess that though we have never thought very highly of any of the arguments that have been urged in favour of the doctrine of the importation of the Yellow Fever, yet we are certainly of opinion that that side of the question has been frequently supported with much more force and ingenuity than in the present instance, and we doubt exceedingly whether the advocates of contagion would be willing to acknowledge Dr Bayley as their champion. Though we have had occasion to speak somewhat severely of his opinions we cannot con-

clude without observing that we have no question of the sincerity of his belief and must consider his case as an instance of the power of preconceived opinions in warping the judgment of the most fair minded. Q.

ARTICLE XII.

Essays on Fevers and other medical subjects. By THOMAS MINER, M.D. and WILLIAM TULLY, M.D. Middletown, Conn. E. & H. CLARK. pp. 484. 1823.

THE appearance of an original medical work of nearly 500 good pages, is so rare an occurrence in this country, that we could not but regard it with unusual interest; especially coming as it is understood this work does, from the hands of men of long experience in the profession. We have been impatient, therefore, ever since this work was announced, to get possession of it; and seize the first opportunity to introduce it to the notice of our readers.

This book, as its title shews, is the joint production of two gentlemen; and the parts furnished by each, are entirely distinct, and do not appear to have any connection except what arises from the convenience of publishing in one volume. The several essays in each part are also separate treatises, without any very intimate relation to each other; and some of them were written as occasional performances. They were 'written at various times,' this is said of those in the first part, 'for the purpose of illustrating the same general principles, without, however, expecting, when they were composed, ever to embody them in one volume.'

Part I. is by Dr Miner, who occupies the first 287 pages. The author seems to have a sort of foreboding of harsh treatment from the public, which we are at a loss to account for; unless the reason be found in the consciousness that he has treated others with little ceremony in his work, and the apprehension that, the measure he has meted will be returned to him. The following remarks precede the preface as a sort of advertisement to the reader.

'He, who advances any thing new or uncommon, with respect to a subject that has an extensive influence upon the important interests of mankind, or who combats ancient prejudices and inveterate habits, will ever find one of his greatest difficulties to consist, in obtaining a fair, candid, and impartial hearing. The subject is perhaps treated so clearly, as to carry demonstration in every sentence;

and yet, in an indolent and superficial age, few may be found, who will take the pains requisite to become masters of the facts, or of the chain of reasoning, which leads to the necessary deductions. Should he even obtain a hearing, he is still uncertain of success. It can scarcely be supposed, that they, who have adopted opinions which are contrary to reason and evidence, and have long made them principles of action, can be induced, by any process of reasoning, to renounce them, and to acknowledge their futility. Indolence and obstinacy are two prominent traits in the human character. They have ever been among the most powerful obstacles to the investigation and the promulgation of truth. When I was a young man, I thought it was only necessary to state facts, and the evidence upon which they are founded, with clearness and precision, to enable me immediately to obtain universal assent and approbation; but from a little experience, I soon had reason to fear, that *THE LOVE OF TRUTH** was far from being the ruling passion of a great majority of mankind.—p. iii.

The preface also begins with the remarkable declaration that ‘The author of the following Essays expects very little indulgence, except from his individual friends.’ He is not however, disheartened at the prospect, nor disposed to conciliate his readers by soft words.

‘To theorists and cavillers, who are disposed to question the accuracy of any of the important facts, which are asserted in these pages, before they have acquired the patience and skill of testing them, by such fair and repeated trials, as have been made by the author, he can only say, that he entreats them instantly to lay the book aside—to stop at the threshold—and not to give themselves the trouble of perusing a work, which they are thus predetermined to treat uncandidly.’—p. ix.

This, it must be acknowledged is rather an uncourteous reception for a new acquaintance at his first introduction:—to be threatened with having the door slapped in our faces, and a kick into the bargain, unless we can at once subscribe to a variety of strange doctrines, or at least promise to go through a course of investigation to test them, which he acknowledges has taken him the best part of a long life. We fear that many of our readers will be disposed to take him at his word, and turn away in disgust. But we entreat them to have a little patience, and enter with us. If we meet with a hospitable reception within, we need scarcely be disturbed by the growling of the watch-dog at the entrance.

* We have desired the printer to be scrupulously exact in copying the capitals and italics in printing the extracts, for much of the emphasis and beauty seems sometimes to depend on them.

We confess however we feel ourselves somewhat at a loss whether we are to be regarded by our author, as intruders, or as guests who have permission to enter. We do not profess to find our own character in the prohibition we have quoted. nor in a previous description of persons who are to expect but a meagre entertainment from the viands he has prepared for them.

‘Neither the timid, nor the rash--the indolent, nor the bustling--the credulous, nor the skeptical--the empirical, nor the dogmatic--will here find any thing to flatter their prejudices. No success is promised to any, who are deficient in accuracy, skill, and patient investigation.’--p. vi.

Our purpose, we confess, is criticism ; but it is liberal and candid, not captious criticism. We might therefore proceed, though with some trembling and hesitation ; but our apprehensions are again excited by doubts whether we belong to the class of persons for whom this work was designed.

‘Most writers on professional subjects, under an assumed modesty, offer their productions for the perusal of students only. The author has no affectation of this kind. As this is neither an elementary nor a systematic work, it is not, of itself, calculated to teach a student, how to administer a *single* dose of medicine, in *any* disease. He can scarcely expect his *Essays* to be read, much less to be understood, by any, who are not previously well acquainted with the principles of the healing art, and who have not already become skilled in their profession, by a large share of personal practice, observation, and experience.’--pp. ix, x.

We are not students, certainly, in the sense in which the term is here used (albeit we would not reject the appellation in a more extended sense.) We claim indeed some knowledge of ‘the principles of the healing art,’ and trust we have not wholly lost the benefit of some fifteen or twenty years experience ; but we would speak modestly of our ‘skill in the profession,’ and we cannot boast of so ‘large a share of personal practice’ as would be most agreeable to us. Under these circumstances, if we should fail of convincing our author of our claim to enter his premises, or our capacity to relish or digest his entertainment, we trust he will at least treat us with more tenderness than he has some of his anticipated guests, and suffer us modestly to enquire, and to learn wisdom from his experience.

But to be serious, we are much mistaken if we do not discover under these pretensions of indifference to the opinions of his readers, an attempt to conceal the very sensitive apprehension of the criticisms to which he cannot but be conscious that his rash assertions, and his rudeness to others have justly exposed him.

The precise objects which the author had in view in this publication, and the extent to which he conceives they are accomplished, will best appear by a few more extracts from his preface.

‘FOR THE RESOLUTION OF FEVERS, the plan of subduing them in their *early* stage, by *slow and moderate purging with calomel*, is entirely original.’ ‘Much care has been taken to point out and enforce a proper course, during the *preparatory* stage, and most of the usual errors, with their causes, have been noticed. These subjects, it is hoped, are placed in a more just and consistent point of light.’ ‘It is confidently expected, that something novel and interesting is to be found, in the Essays on Pulse, Stage, Type, and Diathesis; more especially, that the distinctions between the *nervous* and *putrid* types and their varieties, are expressed in a manner so lucid, as to be intelligible to every accurate observer. The important subjects of *coinciding* as well as *counteracting* agents, together with the absurdity of prescribing to the name of a disease, or even to the name of a symptom, without first investigating the diathesis, stage, type, or other circumstances of the complaint, have been largely discussed. Nearly all the rubbish, under which the subject of Crisis has been so long buried, it is hoped, has been removed.’

‘It is of immense importance, that the present confusion of the practice of physic, in the treatment of acute febrile diseases, should be known. The quantity of extraneous matter with which it has been encumbered during the last fifteen years, is immense. Some author is needed of so much independence of mind, that he is not *afraid* to hazard his popularity, by publishing a true statement of the most important facts.

‘Should it be thought, that he has vindicated the cause of TRUTH and HUMANITY, with a degree of zeal and ardour, bordering on asperity, he has only to observe, that he can make no apology. When he finds it asserted, under the authority of the highest names, that the Bark is rarely serviceable in our Fevers—that blisters to the head are of no use in typhoid affections of the brain—that Opium, in regular and repeated doses, during the stage of febrile exhaustion, is inadmissible—that the mercurial action, when moderately excited during the *preparatory* stage, is of no other service, than as a test of the natural mildness of the disease—or that continued Fevers are never cured by resolution—his charity is exhausted. He can attribute these assertions to no other sources, than ignorance, obstinacy, and what is still worse, wilful misrepresentation.’—pp. v, vi.

We are not disposed to stop here to inquire whose are those ‘highest names’ under whose authority we are told such sweeping assertions are made. Our author has not mentioned them, and we do not recollect having met with the assertions, certainly not as maxims for practice, without any qualification, as might be inferred from the representation here given.

The first Essay is on 'The Resolution and treatment of fevers.' It begins with the declaration, which somewhat staggered us, until we perceived that it could be only a rhetorical flourish for the beginning of the book, that,

'Fevers are the most numerous, the most complicated, and the most mortal diseases, that afflict mankind. In one form or other, they destroy much the greater portion of the human race. Yet, it is believed, they are not necessarily so fatal, but that their great mortality does, in fact, depend upon several contingent circumstances. It has been calculated, that within a hundred years from Sydenham, the *indiscriminate* use of the lancet, and the antiphlogistic regimen, so highly recommended by him, was the cause of more premature deaths, than all the wars that ravaged Europe, during that period.'—p. 13.

Then, after a phillippick against some of the remedies occasionally used to cure them, we come to the remark,

'But by far the most *prominent obstacle* to improvement in practice, is the opinion which has had too much influence, ever since the days of Hippocrates, that *every Fever must run its course*; that it can neither be broken up at its access, shortened in its duration, nor have its symptoms materially mitigated, by the interference of art.'—p. 14.

This declaration we should also be disposed to regard as a figure of rhetoric, did we not find that it forms a sort of basis to the whole treatise; that our author, strange as it may seem, claims the merit of having discovered, or at least of having first satisfactorily established, the practicability of ever breaking up a fever in its early stage, and the propriety of attempting it, as a general course of practice. We are utterly at a loss to conceive of the grounds upon which this claim is founded. For ourselves we are not aware that we have ever met with an author, or a physician, who in the least degree doubted the propriety of attempting to arrest the progress of a fever in its earliest stages. It is matter of very frequent occurrence for a physician to be called to a patient with every symptom of incipient fever, and by a judicious application of remedies, to relieve him of all disease within a few hours. We would not say, with our author, that we 'never saw a *regular* case of fever, either run its course, or prove fatal, that might not fairly be attributed to some *obvious* neglect or mismanagement, on the part of the patient, or nurses, or physicians.'—Preface, p. viii. But we may safely say, that we have much oftener met with cases that have been broken up in their beginning, than with such as have gone through a regular course.

Our author himself seems to have some misgivings as to his

claim to originality in this practice, for he suggests another reason, more criminal by far than ignorance, for its not being adopted more frequently than he supposes it to be.

‘It is true, when the physician succeeds in breaking up the disease, he loses his fees for protracted attendance, and adds little or nothing to his reputation. Physic is the only profession in which, for any great length of time, in direct violation of the common law maxim, a man can *take advantage of his own wrong*, and derive both reputation and emolument from mistakes, from doing badly, or from doing nothing at all; since it is rare that a patient recovers from any dangerous or protracted illness, without adding to the reputation of his physician, although the very disease itself, or its whole severity and duration, may have been entirely owing to misconception, and consequent mismanagement; so that the sarcastic remark, that “*a great cure is often only a great escape*,” too frequently proves to be literally true.’

We forbear for the present to comment on this, and other similar scandalous charges, which are a libel upon the profession, but shall reserve them for a distinct consideration hereafter.

Having settled it that it is proper to attempt to break up a fever, our author proceeds to the consideration of the means by which it is to be done. Bleeding, emetics, cathartics, &c. he says, no doubt ‘occasionally succeed; but their frequent failure, and subsequent *aggravation* of the disease, is also a matter of daily observation.’ p. 18. He then proceeds,

‘To point out the peculiar plan of practice, which is proposed as the principal subject of this Essay.

‘When the Fever has a typhoid tendency, SLOW AND MODERATE PURGING WITH CALOMEL answers the indications just mentioned, better than any other method. It is the only one, of all the common devices for *breaking up Fevers at their access*, which, in my practice, has been attended with *any degree of certainty*. The Calomel mixed with any mild syrup, but not in the form of pill, should be administered in *small doses*—from two to five grains, every two or three hours, according to the circumstances of the patient, till sufficient catharsis is produced. If possible, the Calomel should be given in such doses, and at such intervals of time, as to be retained in the stomach and bowels *twelve hours*, before it produces its operative effect. But if catharsis does not take place in *eighteen hours* at farthest, it must be assisted by *Castor-oil*, or some other *mild vegetable purgative*.’—p. 19.

At the same time he makes use of various adjuvants, according to the circumstances of the case, pediluvium, tepid aromatic and diaphoretic drinks, fomentations, sinapisms, warm bath, epispastics, &c. When the pain in the head is violent, he applies a blister to the forehead.

‘If the cartharsis incline to be excessive, it must be *promptly* checked by Opium; if too sparing, the vegetable cathartic is to be repeated.

‘When the patient has been previously purging himself injudiciously, with an ill chosen article, or the case is attended with a diarrhœa, or there is reason to suppose that the Calomel will pass *rapidly* through the bowels, or operate *harshly*, or even if there is much irritability of the system in general, it requires a *single medium cathartic dose*, with a sufficient quantity of *Opium* to stay it, at least, for *twelve or fifteen hours*. For a general rule, all the *anomalous* cases of simple Fever, especially those of the low, rapid, and sinking kind, which there is reason to apprehend might terminate fatally in one week, unless prevented by art, require Opium to be combined with the Calomel from the very access, provided any evacuation is admissible; nor are they *safely* managed, unless the patient is kept *uniformly* and *perseveringly* under the influence of Opium to the termination of the disease.

‘This plan accomplishes much more than is usually done by emetics, or *quick* and powerful cathartics, is less inconvenient, and is much less liable to be *spoiled* by the awkwardness and blunders of nurses.’—pp. 20, 21.

It is not necessary to follow our author through his description of the subsequent treatment, in cases where, for the want of ‘early medication,’ or in consequence of the patient’s ‘tampering with emetics or cathartics,’ or for some other cause, the disease is not arrested in the beginning. His principal reliance, during what he calls the ‘preparatory stage’ is upon calomel and opium, followed by bark, and other tonics. We should indeed find much curious remark, if we were able to pursue our analysis; but we should never have done if we were to take notice of every curious remark, with which this work has furnished us.

It is upon his success in the commencement of fevers that our author particularly prides himself.

‘To enforce the expediency of early medication, I would state, that, in the whole course of my practice in Typhus, of all who have applied within the first forty-eight hours, after the obvious access of the disease, *two* cases only have proved fatal; and I am pretty confident, that not one has failed, in which the patient had not been *tampering* with emetics or cathartics, previous to my being called.’—p. 31.

His ‘peculiar plan of practice,’ slow purging with calomel, modified, and followed by opium, not only forms the principal subject of this essay, but runs through the whole of his part of the book. It is the constant theme of his self-applause; the hobby on which he is to ride to fame. For this, emetics, active

cathartics, and bleeding, are to be abandoned, as not only useless, but absolutely hurtful.

‘An emetic,’ he says, ‘is rarely *well managed*, except by the physician himself; nor can active cathartics be much more safely trusted to the care of nurses. These articles, it is true, make a more sudden impression on the system, but at the same time, they are less favourable, and in a much greater degree *exhaust* the powers of life, or excite unmanageable and dangerous *irritation*, without having the same efficacy in *changing* diseased action. Nay, they sometimes *concur* with it, and add to its force, so that the patient frequently, and *justly*, thinks he should have escaped the disease, if he had not employed a physician.’—p. 21.

‘Efficient bleeding, though it occasionally produces a resolution in hot Typhus, is always a *hazardous* experiment.’—p. 22.

We are not disposed to deny Dr M. his claim to originality in this mode of practice. Other physicians, probably most physicians, have occasionally used calomel, in a manner for ought we can see, precisely similar. Dr Warren in his ‘View of Mercurial Practice in Febrile Diseases,’ says of a fever which prevailed in Boston, in 1796, that ‘from ten to fifteen grains of calomel alone, repeated, commonly effected the cure with more certainty, than when preceded by emetics.’—p. 97. And in a different state of things in the same fever, he says, ‘On these occasions calomel and opium given in pills to the amount of one, two, or three grains, of the former, repeated at intervals, till copious evacuations from the bowels took place, had a salutary effect.’ And again, ‘A few doses of calomel excited the system to action, and the patient began immediately to recover.’—pp. 98, 99.

Still we are not aware that any one has before so reduced this practice to a system, as to exclude all other modes of practice, in this stage of disease. We believe Dr M. to be the first to prove that bleeding, emetics, and active cathartics, are *all* (others before him have rejected one at a time) not only useless, but dangerous, in the beginning of an acute disease; and that the slow purging by calomel is the only remedy to be relied on, to break up a fever. To him belongs the glory of casting away every other weapon, and resting his safety on one alone. Nor does the merit of our author stop here; other diseases are cured by his ‘slow and moderate purging,’ some of which, we are persuaded never yielded to such a remedy in other hands.

‘Notwithstanding the disease, of which we have been treating, is the *Typhus-mitior* or *Nervous-fever* of authors, yet these principles, with very little variation, apply to Typhus-gravior, Cynanche-maligna, Pneumonia-typhodes, typhoid Measles, many cases of Dysentery, Rheumatism, and every *low acute febrile disease*.’—p. 59.

‘I have known the same plan (only the Calomel and Opium, in the *early stage*, were given in almost *incredible doses*, and in the stage of exhaustion, were *promptly* followed by the most energetic support) to succeed completely in Yellow Fever, and other malignant diseases, imported from Southern climates. Hydrocephalus-internus is *frequently cured* by an *energetic* use of Calomel and Opium.’—p. 59.

Neither are we inclined to question the efficiency of this all-powerful remedy. We might, if we were disposed to be capacious, ask, how a medicine, which is to ‘be retained in the stomach and bowels, twelve hours before it produces its operative effect,’ can be sufficiently active to cure a disease which he tells us, ‘sometimes destroys life in six hours.’ But we do not rank ourselves among Dr M.’s ‘cavillers;’ and therefore submit our ignorance and curiosity to his wisdom and experience.

We have not time to follow our author through his notice of the objections to his calomel practice; nor have we room for more than the following extracts from his unanswerable replies.

‘It should be recollected, that what one man has not been able to accomplish from carelessness, indolence, skepticism, or want of suitable skill and dexterity, is no argument against the effect, which others *have actually produced*, and do *uniformly* produce: and that what one man does *not* know, is no disproof of the facts, which are known by others. *Negative* testimony, against *positive*, amounts to nothing. The assertions of those physicians, who from a false theory, or from timidity, or indolence, or ignorance, or obstinacy, or want of opportunity, have not given a fair trial to a particular article, can therefore have no weight. Besides, we are more apt to record the unpleasant, than the favourable effects of an efficient article. Hence, we are inclined to give more than a due importance to the occasional inconveniences of Mercurials.’—pp. 37, 38.

‘After all, *indolence*, and a *temporizing disposition*, are in truth the greatest obstacles, to the adoption of the Calomel practice in Fevers. It is to be feared, that the number of those who have sufficient *patience, observation, and skill*, to do justice to such an important article, will *ever* be small. The *discrimination, incessant care, close observation, and accuracy*, which are necessary to *insure success*, are irksome to some minds. They will never take the pains, necessary to *watch the effects* of an active medicine. Besides, they well know, that the public is frequently so censorious, as to raise a greater clamour on account of one salivation, than on account of ever so great a mortality, arising from the *negligence, or indecision*, of the physician. When the patient dies, there is nothing to be said; but if he recovers, every gossip takes the liberty to criticise the practice.

‘I have no patience with the physician, who can suffer himself to be *overruled* by any of the preceding considerations; if he is so situated that they are imperative, let him renounce his profession in-

stantly, and cease to expose himself to the daily violation of the sixth commandment, through the omission of the Calomel and Opium, and supporting practice.'—pp. 40, 41.

These are but the outlines of our author's system; and we do not pretend to furnish such an abstract, as to enable our readers fully to comprehend all the peculiarities of his practice, or of his spirited mode of writing. We have done what we could to give them a faithful specimen of both, but if they read his book, they will doubtless exclaim, 'The half was not told us.'

We began with the intention of giving an analysis of each of the several essays; but we find as we proceed, that the abstract would not repay either our readers or ourselves for the labour; and it is wholly unnecessary for the purpose of giving a sufficient account of the author's doctrines, or mode of writing. The first essay contains the spirit—the essence—in short it is the very calomel and opium of the whole book. Whatever may be the title of the essay, the subject is substantially the same. The book is filled with rash and unfounded assertions, extravagant theories, and the most gross and unwarrantable aspersions upon the profession, mixed with a large share of self-complacency and arrogance.

The second essay has for its title the assertion, 'MEDICAL AUTHORS ARE RARELY PRACTICAL PHYSICIANS.' And the author goes on to say that,

'Most Medical publications, are either the speculations of the young, who lack employment, and thus wish to introduce themselves to the public, or the *recollections* of men, who have, in a good degree, retired from business, or the theories of professors, who sit at their ease, in the academical chair.'—p. 69.

That,

'The generality of the books which are read, and of the systems which are taught, are fifteen or twenty years *behind* the actual improved state of medical science.'

'Age,' he says, 'is naturally timid; youth when modest, is so necessarily; and learned professors usually have their systems, which require all their ingenuity to defend. Authors by profession, if engaged at all in practice, are generally employed as *counsellors only*, and therefore, have not the means of observing the *beginning, progress, and termination* of acute diseases. There is besides a reluctance, which most authors feel at publishing extreme cases, or those which are treated out of the common course, however successful the result. The epithets, *theoretical, young, rash, visionary, hazardous, enthusiastic, and even boasting, headstrong, opinionated*, are easily applied, instead of argument and facts; a party is created among the people, and truth and reason are drowned in noise and

clamour. By these means, the peaceful and diffident, who would avoid controversy, are overawed and silenced.

‘The readers of professional works must ever be few, in proportion to the general mass of the population. A *popular* medical writer, therefore, will endeavour to *offend* as few as possible. The rapid sale, and general circulation of his work, are *his* principal object. Of consequence, he will rather follow, than attempt to correct, popular errors. He will either suppress his peculiar opinions, or modify them in such a manner, as to make them palatable to the general taste. The influence of reviewers and interested persons is so great, that it does not require a very extensive combination, to prevent the circulation, and even the publication, of any work, that combats popular prejudices. Though we live in an age, highly distinguished for many improvements, yet it is also, an age of much shuffling and time-serving. It is not probable, that, since the invention of printing, an honest and independent medical author was ever surrounded with more difficulties. The obstacles to the publication of facts and conclusions, in opposition to those which are generally received, are very formidable, and, to the timid, notwithstanding our boasted liberty of the press, are insuperable. Hence, we rarely have accurate cotemporary statements, either of disease, or practice.’—pp. 70, 71.

We cannot sufficiently admire the courage of the man, who, in the full view of such dangers and difficulties, ventures not only ‘to combat popular prejudices,’ but to attack the opinions, and practice, and character, of the best physicians in all ages of the world. We need not say how far all this is from the truth.

As he proceeds in the Essay our author seems to forget the position with which he began, that authors are not practical men, and discovers that their practice was in fact much better than they are willing to own. At all events their writings are not to be trusted; for Sydenham, Cullen, Hey, Clutterbuck, Armstrong, and almost all other standard writers have conspired to conceal their real practice, and cheat the world into a belief that they cured their patients by other means than what they pretend to have used! They doubtless, like our author, relied on Calomel and opium as the chief remedy in all cases, and only prescribed bleeding, emetics, and cathartics, to amuse their patients, and deceive the world!

‘There is good authority for asserting, that the individual, personal practice of Cullen, was much more energetic, than *he* thought *prudent* to recommend in his writings. In common with most authors, he was afraid to hazard his popularity, by entering into minute details of his own private practice, though he was better acquainted with the powers of the *Materia-medica*, than any other physician of his day.’

‘We every day discover, that writers studiously conceal facts, which militate against their favourite theories and modes of practice. Even Sydenham, with all his candour, is accused, I believe justly, of suppressing an account of an epidemic, typhoid Measles, of which three hundred died a week, in London. Every practitioner knows, that his antiphlogistic treatment would be fatal, in such a disease.’

‘A practitioner, who very studiously concealed his medicines from his employers, busied himself for years, in every company, in uttering philippics, against Calomel and Opium, and slandering his brethren who used them; and thus, he annoyed all the physicians in his vicinity, by the prejudices he excited, among their patients. Yet, *this very man*, frequently, and sometimes carelessly, used these articles himself, and was among the first, who successfully managed Pleurisies, with Calomel and Opium!

‘What a serious and lamentable fact, in this scientific age, that the medical world should be subjected to such timid, feeble, negative kind of imposition; and that too, when the loss of numberless lives, is owing to the suppression of the requisite information!

‘Some writers employ such a portion of their works, and take up so great a part of the time of the student, in treating of the *exceptions*, that the general mode of practice is entirely overlooked. The most false inferences are the consequences. From a *hasty* perusal of the writings of a popular physician and able practitioner of our country, we should suppose, that bleeding was his *sheet-anchor*, in Pneumonia-typhodes. But from an accurate analysis, it will be found far from being the case, and that his practice was, by no means, indiscriminate. In one town, he bled in *seven* cases only, out of *sixty*. Surely, in these cases, bleeding was quite an exception to his general method of treatment. It is very evident, that the success of his practice was owing, to his *free use* of Calomel, aided by an *efficient* course of blistering. I have no doubt, that this remark will apply, with nearly equal justice, to Hey, Clutterbuck, Armstrong, and the several authors, quoted by Johnson.’—pp. 73, 74, 75.

From the title of the third Essay ‘Diseases on the River Connecticut,’ we had hoped that we were to escape from mere speculative discussions to an actual description of diseases. An able and correct description of the phenomena exhibited by the diseases of the different portions of our country, would be a valuable acquisition to medical science. But we are disappointed to find that we are still as much as ever involved in speculation, and hypothesis, and railing. We had before observed some complaints against prescribing for symptoms; and we now find that our author carries his notions on this subject so far, practically at least, as to reject all notice of the symptoms in his description of a disease. His diseases are sthenic or asthenic, or rather they are all asthenic, and have a name, stage, and type;—but no mention is made of symptoms and appearances. The

practitioner, if such a one is to be found, who should content himself with prescribing for individual symptoms, without investigating their origin, order, and connection, would unquestionably make a very poor physician. But surely it is the collection of symptoms which constitute the disease; and it is only by its symptoms that the disease can be characterized. The physician who disregards the symptoms in describing and treating diseases, is like those statesmen whose patriotism regards only the *public* good while it overlooks the interests of the individuals of which the public is composed.

Our author seems fully aware of the importance of a good history of epidemics, for he says,

‘An *accurate* history of the epidemics, which have appeared, within the last fifteen years, on the Connecticut, from its mouth, to the boundary of Massachusetts, would give more light on typhoid diseases, than all, that has hitherto been published, on this subject, from the age of Hippocrates.’—p. 84.

He does not, however, attempt the history himself, valuable as it would be; but after a few desultory remarks on the general character, or type of different diseases, he leaves the subject to give the following character of the Connecticut river physicians.

‘Probably, there does not exist in the world, an abler body of *practical physicians*, in *acute* diseases, than in the Counties of Hartford and Middlesex. In the County of Middlesex, I do not know one antiphlogistic practitioner, in Typhus. With the exception of the peculiar process of *slow and moderate purging with Calomel*, for breaking up disease at its access, and the extreme caution, with which I use *drastic* emetics and cathartics, in low Fevers, and also the peculiar importance, which I ascribe to the proper management of the *preparatory* stage, I perfectly agree with a great majority of them, in the *general* mode of practice. During the stage of exhaustion, our indications and treatment are the same precisely. They are mostly plain, *practical*, common-sense men, making but *little* pretensions to science, and *none* to theory; too much engaged in business, to publish the result of their practice; and too modest to *puff*, either themselves, or their brethren. The consequence is, that the public is almost entirely ignorant, of the *character*, of the prevailing diseases, or the *merits* of these gentlemen, as sound and successful practitioners.

‘It is a great error to suppose, that good physicians are to be found only in large cities. So far from this being universally the fact, it is probable, that reforms are more difficult, the progress of improvement is much slower, and the eradication of ancient prejudices, less easy, in them, than in the more scattered population of the country. In Connecticut, if a practitioner were to bleed a gallon for the Colic, as in La Roche’s case, or to deplete in the last

stage of a malignant petechial Fever, or to salivate by barrels, for sub-acute inflammation of the lungs, as in Hale's case, or to make his patients stand on their feet, after the exhaustion of parturition (these are facts, not caricatures) he would not only lose his business, for his ignorance, rashness, and barbarity, but he would also be amenable to the laws, for such shocking mal-practice. Heavy damages have been recovered, in more questionable cases. Yet these preposterous measures are not uncommon, in some large cities, at this very day, and are sanctioned by some of their first men.'—pp. 87, 88, 89.

We cannot but congratulate the physicians of Connecticut upon their good fortune in possessing so able, modest and amiable, an eulogist and representative in the person of our author. We must be permitted also to add our congratulations to the good people of the counties of Hartford and Middlesex, upon their unexampled felicity, in so enlightened a state of the faculty. We cannot but envy that state of society where the good sense of the community, and the terrors of the law, are sufficient to deter their physicians from bleeding by the gallon, and salivating by the barrel.

We are at a loss to conjecture what could be our author's motive for instituting this comparison between country and city practice. That some physicians in the city have an abundance of leisure from the fatigues of practice, which they may devote to study if they will, we may safely aver; but that they are in any respect better physicians, we would not take it upon ourselves to assert, nor have we ever heard it asserted. We could wish Dr M. had been a little more explicit in quoting his specimens of city practice. He has indeed mentioned the names of some of the cases, but not having the cases in our recollection, we are ignorant whether the names refer to the patients or to the physicians. If to the latter, we know those who would be as modest as Dr M. represents Sydenham, Cullen, &c. to have been about acknowledging the practice, and who would not be ambitious of receiving the credit of it. We apprehend too, that the Dr a little overrates the energy of city practice. We do not pretend indeed, to answer for other cities; but for our own city, we can assure him that 'these preposterous measures are' somewhat 'uncommon.' For ourselves, and those with whom we are accustomed to associate, we may safely state (and we trust he will not ascribe it to an unwillingness to acknowledge the real efficiency of our practice that we say it) that although we sometimes (not often) salivate our patients, we have never been able to collect a single barrel of saliva in our whole lives. We occasionally bleed, but we had rather measure the quantity

of blood by pints than by gallons, and we *sometimes* estimate it by ounces ;—we had rather bleed in the beginning than near the termination of a disease, and we never bleed a patient after he is dead.

The fourth essay is entitled 'Fallacy of popular reports on Medical subjects,' for no other reason that we can perceive than that popular report has not given the author a rank so high as he conceives he deserves, and this essay is to set the public right in that particular.

The public will be glad to learn from this essay, that hemlock, arsenic, and prussic acid, are safer medicines than cream of tartar, and soda powders.

'But, when the most efficient articles are indicated, it is a happy circumstance, that there are *certain definite and precise* principles, that, provided the symptoms, for which they are used, do not previously yield, show to what an extent they may be carried, with the most *perfect safety*. To every discriminating mind, these are more evident, than the tests of the most common articles. Thus, the points to which Opium, Conium, Stramonium, Colchicum, Mineral-solution, Prussic-acid, &c. can be carried, *with the most perfect safety*, are ascertained with much more precision, than they are, with bleeding, Antimony, Nitre, Cream of Tartar, vegetable acids, and the common refrigerants, and of consequence, in the hands of the judicious, are *vastly less liable* to do injury. I have witnessed more mischief from venesection, antimonials. and drastic emetics, and cathartics, and even from Cream of Tartar, neutral mixture, and "*Soda-powders*," than from all the efficient excitants, deobstruents, tonics, and narcotics, of the *Materia-medica*.'—pp. 99, 100.

The essay is in fact a sort of professional creed, and no one who inspects it will accuse the author of the artifice which he charges upon others, of concealing the efficiency of his practice. We might have thought some of the doses of medicine rather large. (For example, 'for days, twenty-five grains of Opium, a drachm of Mineral-solution, and two pounds of diluted Alcohol, in twenty-four hours,' and 'four hundred grains of calomel in four days,' p. 94.) But we are admonished in the concluding paragraphs, that it is only our ignorance that would make us think so.

'It is owing to want of *attention* of this kind, and to *ignorance* of the powers of Opium, to counteract and modify, or *regulate* the effects of most of the efficient articles, when it is properly combined with them, that we hear so much of the liability of Prussic-acid, Digitalis, Stramonium, &c. to *accumulate* in the system; and consequently, of their producing sudden and unmanageable symptoms. Such cases, *do not occur* in the practice of those, who *know* and *attend* to the incipient operative effects, of the most important articles of the *Materia-medica*.

‘They, who are ignorant of the *tests* of the important articles, which have just been mentioned, consider their use as hazardous; in other words, they suppose all their medical brethren as little acquainted with the *Materia-medica*, and consequently, as ignorant, superficial, and unsafe practitioners, as themselves. They, therefore, content themselves, and their consciences, with standing by, as idle spectators, and seeing their patients fail, under palliatives and *placebos*.

‘I have witnessed, again and again, in the most desperate cases of disease, the attending physician, express a much greater dread of an efficient and safe course of treatment, than of the death of his patient. He was too ignorant of their operative effects, and too indolent, to watch the changes which they produced, to have any idea of the peculiar properties of efficient articles. With him, therefore, the administration of every important medicine, was a matter of hazard, skepticism, and uncertainty.’—pp. 101, 102.

The calomel and opium practice has been so successful in the hands of our author, that we are utterly at a loss to know how the people of Connecticut can ever die; for a great variety of chronic diseases, which are caused by the practice of others, it must be remembered, are prevented by his calomel and opium system. The result of his practice is thus stated.

‘Physicians are justly censured, for not reporting their unfortunate cases. *General assertions* are entitled to very little credit, unless supported by a *specification* of numbers, and circumstances. To avoid this imputation, I shall state the numbers which I have lost, within the last seven or eight years; that is, since the experience gained from practising in a mortal epidemic, which raged in 1812. From the most accurate recollection, four cases only, of common Typhus, one, of Pneumonia-typhodes, one, of Cynanche-maligna, and two, of Spotted-fever, compose the whole number of my patients, from the age of four or five years, to seventy, that is, exclusive of the diseases of infancy, and old age, that I have lost, from any *acute febrile disease* whatever. (May, 1820.)*’—p. 103.

‘As I pursue a very similar plan, in the febrile diseases of children, it is proper to mention, that I recollect only three or four deaths, out of the many hundreds, perhaps thousands of cases, of every description of acute diseases, of those who have been my patients, during the last eight years.’—p. 104.

‘In some of the large cities of our country, one fifth of all the deaths are of Consumption. This cannot be accounted for, on any other principle, than the reducing plan of treatment in this complaint, and the liability to this affection, to which those ever must be subject, who have had their constitutions much impaired by the excessive depletion, which is practiced in acute diseases, since the prevalence of the asthenic diathesis. On the Connecticut, Phthisis,

* Two other unfortunate cases of Typhus are to be added. (April, 1823.)

though not rare, is by no means a *very* frequent disease. In its *incipient* stage, it is as often cured as any severe malady, which we have to treat. It is with us, however, never successfully managed by depletion, and exhausting the powers of life. Calomel and Opium, and Sanguinaria, with a suitable course of mineral tonics, are almost specific in curing that *sub-acute* inflammation of the lungs, which usually precedes a confirmed Consumption. When a fair opportunity has been presented, for executing this plan, with its proper adjuvants, I can safely assert, that I have never failed, in more than *one* instance. Opium, with sugar of Lead, and occasionally, with pills of Capsicum, is attended with similar results, in the early stages of the hæmorrhagic variety. This is the result of my experience, in these varieties of that disease, which has been considered as the *opprobrium Medicorum*.—pp. 142, 143.

We lament that our author's success in practice has had an unfavourable influence upon his fortune. 'It is equally certain,' he says, 'that I have lessened the emoluments of my profession, some thousands of dollars, by the early resolution of fevers.'—p. 106. We trust the Legislature of Connecticut will see to it, that this loss is speedily made up to him. Surely so able and enlightened a State, will not suffer such a martyr to the cause of benevolence to go unrewarded.

We regret that we are not able to notice more of the curious 'medical facts,' mentioned in this essay. We quote the two following, both on account of their importance, (if facts they really are) and because they are the only 'facts' stated in the essay, which do not relate personally to the author.

'The mercurial diseases, that are sometimes excited in syphilitic, and other *chronical* affections, are not now the subject of consideration. Yet even here, it is capable of demonstration, that where *one* patient has been permanently injured by Calomel, *hetacombs* are annually sacrificed, to bleeding, Antimonials, and the antiphlogistic regimen.'—p. 108.

'The most *timid*, in the use of Calomel, Opium, Alcohol, Cantharides, Mineral-solution, Ergot, Acetate of Lead, &c. have *no fear of the death of their patients*, from an inert course; or, on the other hand, they will prescribe emetics, cathartics, and venesection, with all the obstinacy and rashness of Sangrado.'—p. 109.

From defending and praising his own practice, in several of the preceding essays, Dr M. proceeds in the seventh, under the title of 'Experience,' to find fault with the practice of others. The general result of his 'experience' is, that bad practice yields the physician more reputation and money than good; and that the profession of medicine is sadly on the decline. Many examples of bad practice are mentioned in proof, which all seem to result in a too slight use of calomel and opium; or rather in using

other active remedies besides them. 'A prominent cause,' we are informed, 'of the *deterioration* of medicine in the United States, is the combination of the two professions of physie and surgery.' p. 136. We must pass by his ingenious disquisition on this union of the two branches of the profession, and the relative merits of each; and come to his account of the state of the profession in Europe.

'Nor does the state of medical practice on the Eastern continent, appear at the present time, to rest on a much more stable basis, than with us. Though chemical and pharmaceutical science, and Surgery, are much improved, and there is a great accumulation of *insulated* facts, yet in acute diseases, both the theory and practice of Physic seem to have *retrograded*. Judging from the popularity of such authors as Hamilton, Hey, Clutterbuck, Johnson, Welsh, and Armstrong, with most of the periodical works, every thing is there in a state of confusion; and the modern Physicians are guided by no definite rules of practice, *in acute diseases*. Of consequence, they appear to have no rational grounds for their indications, and in too many instances, prescribe merely to the name. The most important, and in unskilful hands, the most hazardous *médicinal* agents, the most deadly weapons, are often mentioned with so much levity, as entirely to mislead the inexperienced. Bleeding *ad deliquium*, wasting the vital fluid by gallons, is taught as a matter of little consequence, and likely to occur in the practice of every day!!! If the disease is called *Fever*, they must *bleed* and *reduce*, no matter how much; if it is called *inflammation*, bleed and reduce still more. They appear to have lost all *accurate* knowledge of *type*, temperament, and *diathesis*; of the distinction of *active* and *passive* inflammation; of the difference between *inflammation* and *irritation*; between a *full* and *soft*, or a *strong* and *hard* pulse; or between the *quantity* and the *quality* of diseased action; or between irritability and torpor.'—pp. 143, 144.

The author is, however, happy to find 'several honourable exceptions,' and he names 'among those, *who have not bowed the knee to Baal*,' (and we hope they will be suitably grateful for the honour thus conferred upon them,) 'Sir Gilbert Blane, Coxe, Reid, and Hall.' Still he seems to have little hope that the profession will soon revive, for 'the extreme want of discrimination which prevails among a large proportion of physicians, would be incredible to any one, who had not particularly witnessed the fact.' p. 145. In another place the author speaks of 'stemming the torrent of that *indolent*, rash, desultory, and indiscriminate practice, which is so fashionable, at the present day, both in Great Britain and America.' p. 112. We do not hesitate to say that there is not a particle of truth in these often reiterated assertions, about the general careless and indiscriminate practice

of the present day. There has been no previous period in the whole history of medicine where there has been any thing approaching to the accurate and laborious investigations into the causes, character, and proper treatment of diseases, which the present age has furnished. The improvements in physiology, combined with the researches in morbid anatomy, as connected with the symptoms of diseases, which have been made within a few years, have raised the science of medicine incomparably above what it ever before attained. So far from its being a prevailing practice to prescribe by the name of a disease, there never was a time when names had so little influence in practice, and when nosological systems were so little used. We have regarded it as a peculiar feature of the medical science of the present day, that there is so general a disposition in the profession, to investigate each individual case of disease, by itself, to ascertain as far as possible its origin, and its character, and its influence on the several functions, separately and collectively; and to treat it accordingly. This exemption from the influence of names extends also to the community at large. Patients and their friends, in this vicinity certainly, are much less inquisitive to know the appellation of a disease, than was formerly the case. For ourselves, we are rarely called upon to give a name to a disease, except when the case has terminated unfavourably, when we comply with the request of the Board of Health to report it to them, that it may stand correctly in the Bill of Mortality.

It may be gathered from the quotations that we have already made, but it deserves to be stated somewhat more distinctly, that our author resolves all the phenomena of diseases into type, stage, and diathesis, to the almost entire neglect of the distinguishing symptoms of each disease. Not only fevers, but all other diseases are subject to this supposed change of diathesis; so that in treating croup, rheumatism, pleurisy, &c. we are to be governed in our practice, not by the symptoms of the disease, but by the character of the prevailing diathesis.

‘In illustration of these remarks, I would farther observe, that according to my view, Synocha always is of the same type and diathesis; when health does not immediately follow, the supervening diseases are elsewhere mentioned. Typhus is always asthenic, from its commencement, whether it first attacks the patient, or follows a preceding Synocha. But, we can form no accurate judgment of type, diathesis, or even of the propriety of practice, from the bare name of scarcely any other acute febrile disease. Thus, Pneumonia may be of either diathesis, or type, or variety of either type, and require an appropriate treatment. When the attending Fever is Synocha, depletion and reduction must be pursued to the fullest extent, and stimulants are poisons. The Small-Pox, Measles, Quinsy,

Phrenitis, and Dysentery, and all the Fevers, which are attended with local inflammation or eruption, although they retain their nosological name and character, are subject to the same variation, in different persons, and different epidemics. From ignorance of these facts, and attending to the nosological character only, thousands of lives have been needlessly wasted.'—pp. 236, 237.

'The examples of diseases of this type [the nervous (mitior) type']—are Nervous-fever (Typhus-mitior of Cullen) Jail-fever, the common Fever or infantile Remittent of children (Marasmus of Ayre) many, perhaps most cases of Intermittents, at least in temperate climates, Spotted-fever of New-England, many, perhaps most, cases of Croup, some cases of Quinsy, or common Cynanche, in which the inflammation is neither phlogistic nor gangrenous, one variety of Pneumonia-typhodes, (particularly the Bastard-pleurisy Peripneumonia-notha of Sydenham) as well as Catarrhus senilis of authors, and epidemic Catarrh.'—pp. 201, 202.

'Much of the confusion of modern practice, arises from overlooking the *peculiar* diathesis, which attends inflammation. During the prevalence of a *very general, asthenic diathesis*, acute Rheumatism, Quinsy, Mumps, and even burns, wounds, and contusions, have no *true* sthenic or phlogistic character, and are most successfully treated upon a counteracting, exciting, and supporting plan.'—p. 61.

Connected with this hypothesis, and dependent upon it, is the assertion, that all our diseases at the present day are asthenic.

'The entire change of diathesis,' he says, 'which, within the last fifteen years, has taken place, not only in Connecticut, but probably, in all the United States, is one of the most important facts in medical history. It has reversed almost the whole course of experience, by the *absence of phlogistic diseases*.'—p. 135.

'In the typhoid epidemics of the present day, *with us* there is no intercurrence of sthenic cases; and indeed, during the general prevalence of the asthenic diathesis, even when no epidemic is present, individual cases of any disease, even of a *moderate* sthenic character, are, for a general rule, entirely unknown. I have stated in another Essay, that I have met with only three or four phlogistic diseases, in the last seven years.'—p. 238.

'The great error, in the *preparatory* treatment of our modern Fevers, arises from a *false theory*, that they are phlogistic, or actively *inflammatory*, in the beginning. But, though this may *possibly* have been the case, fifteen years ago, it is not *now* the fact. *We* have not, at the present day, any such disease, as Cullen's Synochus. In a genuine Nervous-fever, there is an *entire absence* of active, inflammatory, or phlogistic symptoms, from its very commencement; and the *heat* and *irritation* of Typhus-gravior, although so often confounded with Synocha, are *essentially different* from it, and are *best relieved*, by a directly opposite course of practice.'

'In the part of the country where I reside, I have not witnessed more than *three*, decidedly active, inflammatory cases, either in my

own practice, or in consultation, for the last seven years. Even the *local inflammations* attending the Phlegmasiæ, are uniformly of the *passive kind*.—pp. 60, 61.

‘Since the epidemic of 1812, a genuine *active, inflammatory* Fever in the County of Middlesex (and I am well acquainted in every town except one) is as *rare* as a comet. If any medical friend, within twenty miles of my residence, could show me a real, old-fashioned Pleurisy (I do not mean hot cases of Pneumonia of the sub-putrid type, but such as we used occasionally to have, fifteen years ago) which should require the loss of thirty or forty ounces of blood, and a proportional quantity of antimonials, nitre, neutral salts, &c. to overcome the inflammation, I would immediately repair thither, and if my services were needed, most cheerfully attend the patient gratis.’—p. 109.

This asthenic diathesis or type, it must be observed, exists from the very beginning of the disease.

‘There can be no possible reason given, why the efficient causes of disease, should not primarily produce diminished strength of action, and diminished vital power, as well as prostration. But whether a reason can be given or not, there is “*no argument like matter of fact*,” and it is certain, in defiance of all theory, that diseases do exist, and have existed from the days of Hippocrates, which, from their very commencement, and throughout every stage, are attended with absolute debility, as above defined, and even occasionally to such a degree, that Wine, and all the moderate stimulants, prove absolute atonics; though most of these very cases are capable of being relieved, and eventually cured, by more efficient exciting agents. This plain fact is supported by the amplest testimony, of judicious and discerning writers, and is confirmed by the soundest experience of living practitioners; nor can it ever be set aside by the most plausible and ingenious reasoning, or the most extensive negative testimony, and negative experience, of any man, or body of men, who have not discrimination enough to have observed such cases.’—pp. 235, 236.

Another important part of this strange hypothesis, is its bearing upon the history of medicine.

‘It is much to be questioned, whether any *severe* and *wide-spreading* epidemic, except the Small-pox and Measles, was *ever* of the sthenic diathesis. From a considerably extensive reading of writers of various ages, and much reflection on this subject, I am free to confess, that I do not know of *one such* sthenic epidemic, in the annals of medical history.

‘Every devastating disease, which has amounted to a pestilence, whether Cynanche, Pneumonia, Dysentery, Cholera, Spotted-fever, Yellow-fever, Sweating-sickness, or Plague, has been of a *decidedly* typhoid type, and asthenic diathesis. Even epidemic Catarrh, though as respects the hazard of life, it is a mild disease, is unques-

tionably of this character. The most active, acute, or sub-acute disease, under proper treatment, very rarely, if ever, is sthenic, longer than one week. Though there can be no question, that when the general diathesis is highly sthenic, sub-acute affections of the joints, lungs, liver, spleen, &c. if *feebly* managed, or *neglected* at first, occasionally preserve their phlogistic character for a much longer time. Chronic complaints, though often attended with irritation, or even passive inflammation, are *always* asthenic. To these may be added, nearly, perhaps all, the maladies, which *exclusively* belong to natives and old inhabitants of tropical climates, with most of the diseases of camps, fleets, large cities, and crowded manufacturing establishments, as well as those arising from sedentary employments.'—pp. 78, 79.

It is this asthenic hypothesis, that forms the basis of our author's practice, and his pretence for all the railing and abuse which he so unsparingly heaps upon those who differ from him.

'In asthenic diathesis' he says 'all depletion and evacuation, *as reducing agents*, are always unnecessary, and invariably injurious. In *acute* asthenic diseases, bleeding is probably never judicious. In chronic cases, it is occasionally serviceable, for the purpose of increasing susceptibility to the action of other articles; but, it should be always promptly followed by efficient counteraction and support. Vomiting and purging ought always to be accomplished, by such articles, and to be so managed, as to prove only counter-agents, or to produce such a new train of action, as to overbalance their reducing effects. When used for making a single powerful impression, they should be administered with much caution, and be managed by an experienced hand. Moderate torpor is easily exchanged for troublesome irritability, and dangerous exhaustion, by the improper administration of emetics and cathartics. When there is the least tendency to excessive action, their effect must be immediately checked by Opium, and other efficient support.

'The awkward and rash practice, which indiscriminately employs the most profuse bleedings, with drastic emetics and cathartics, in expectation of producing counteraction, by a sudden and powerful impression, though sometimes successful, especially in torpid cases, and the sub-putrid type, is always to be *reprobated*, as hazardous in the extreme.'—pp. 240, 241, 242.

'It would be well, *if Antimonials were prohibited*, in every typhoid disease. Not, but that when administered by a careful hand, they may be *occasionally* serviceable, in clearing the alimentary canal, and thus *prepare* the system for tonics; and that they are sometimes even successfully employed as counter-agents, in the preparatory stage of hot Typhus, of the sub-putrid type; yet, as their alterative effects can always be accomplished by much *safer means*, by more appropriate counter-agents, they are *unnecessary*, and from their debilitating and irritating properties, are *liable* to produce the most fatal consequences, in *coinciding* with the disease. Antimonials, Nitre,

Cream of Tartar, effervescing mixtures, and the other refrigerant salts, vegetable acids, cold water, or similar articles, are *indispensable* in *Synocha*; and though of more doubtful efficacy, when cautiously employed, *may* occasionally answer, or at least do much less mischief, in the early stages of *Synochus*; (which is however in most instances of the sub-putrid type) but they are always *hazardous*, in the *nervous Fevers* of the present day, which are of the nervous type, and asthenic diathesis, *from the very access*; and if used for any considerable time, in *efficient doses*, are *uniformly pernicious*.—pp. 249, 250.

‘Yet, those practitioners, who mistake the heat of *irritation*, or *passive inflammation*, for *active inflammation*, though the pulse may be from a hundred and twenty, to a hundred and fifty, in a minute, consider this *heat* as a reason for continuing their use, and pursue the course, till all the most dangerous and unmanageable symptoms are produced. While, such cases often require only a few doses of Dover’s powder, or Volatile-alkali and Camphor, and sometimes, especially in the milder, nothing more than mere Thoroughwort, or Hops, would have been sufficient to overcome the *irritation*, and prevent all those mischievous consequences.

‘In typhoid Dysentery, and Pneumonia, such practice has proved fatal to thousands; and within the last fifteen years, in conjunction with venesection, it has unquestionably destroyed more lives, than perished by the sword, during the revolutionary war.’—p. 251.

Although Dr M. sometimes speaks of the indiscriminate use of bleeding, &c. as being the practice he condemns, yet it is obvious from the whole tenor of his work that it is the indiscriminate rejection of them only that will satisfy him. We surely need not remark upon the absurdity of his system. But what are the grounds upon which we are so confidently called upon to abandon all that the science and the experience of ages has taught us, in respect to the management of acute diseases? It is simply the assertion of Dr Miner, that his experience has detected a better course. He has not even given us, so much as in a single instance, the particulars of that experience, by a detail of cases. There is no course of reasoning to shew that his theory is well founded; there is scarcely an attempt at reasoning in his book. The only authority he has given us, is the knock-down argument that he has found it so, and it is only owing to their indolence or ignorance, or want of observation, that the rest of the world have not found the same. I Doctor Miner have seen it, and against my ‘positive testimony,’ the ‘negative’ testimony of the whole world is as nothing.

We come now to speak of the manner in which this book is written. We do not refer to the style of composition, though that is bad enough, but to the temper and spirit of it. Much of this

has appeared in the quotations that we have already given ; but it forms so peculiar a feature of the book that it deserves a more distinct notice. Dr M. has apparently written under the influence of some personal altercation, and has applied to the whole profession the overflowings of his bitterness, which were engendered by the opposition of an individual. Almost every page contains some gross reflection upon the motives as well as the practice of the great body of physicians. They are represented as indifferent to the lives of their patients, as more solicitous to obtain their money than to cure them, as making wilful misstatements, &c. We might fill our pages with quotations in support of this remark ; but we are tired, and disgusted with this loathsome subject. The following therefore must suffice. The second essay is closed with the remark that ‘there was a great deal of force, and too much truth in the sarcastic remark, that a medical diploma is sufficient to suspend through a whole kingdom, the penalties annexed to a violation of the sixth commandment.’—p. 83. In the concluding essay he says

‘Of all kinds of labour, that, which the conveniences and necessities of civilized society have imposed on professional men, I mean *hard* study and *close* thinking, is most intolerable and irksome to the bulk of mankind. Few therefore are to be found, who are both able and willing to make themselves *complete* masters, and *diligent* members, of either of the learned professions. It would seem, that with many physicians, the lives of their patients were of little consequence, in comparison with the mental ease and indolence, in which they are so fond of indulging.’—p. 285.

And Dr M.’s part of the book concludes as follows :—

‘In this enlightened age, the physician, who is not acquainted with the powers of Calomel, in effecting a resolution of Fevers, or the powers and combined effects of Calomel and Opium, in safely changing such a great variety of diseased actions, or of the powers of Opium, Alcohol, Cinchona, Capiscum, Mineral-Solution, Cantharides, Turpentine, &c. in exciting and supporting the system, or of the necessity of observing regularity in the *time* and *manner* of their administration, has still the better half of his profession to learn. It is a kind of miracle for any patient, affected with an *original*, low and sinking, or malignant disease, to escape with his life out of such hands. Without an accurate knowledge of the subjects of counter-acting and coinciding agents, and of pulse, stage, type, crisis, temperament, and diathesis, all practice is empirical, and no one can be a *safe* physician. Whoever professes the healing art, and is ignorant of these all-important subjects, is an impostor, a madman, a licensed murderer, who has lost sight of his accountability to his employers, to his conscience, and to his God. They who *will not* make themselves masters of these branches of their profession, should be pre-

vented by the rigorous interposition of the law, from imposing themselves on the public as physicians. They who cannot acquire them,

Medicos esse,

Non homines, non Di, non concessere columnæ.—pp. 286, 287.

That a man who like John Brown, undertook to teach the profession he never practised, in his zeal to establish a new theory, should complain of the confused state of medical science, and the bad state of practice, is not to be much wondered at. That the jovial and the thoughtless of other employments, should sometimes seek amusement in pleasantries upon the follies or eccentricities of physicians is matter of little moment, since they give the best proof of their confidence in the profession by an earnest application to its members in case of need. But that a man who has long been a member of the profession, who has shared its honours and its rewards, its responsibilities and its cares, who has been associated with some of the many wise and good men which it contains, that such a man should thus turn traitor to that profession, and denounce, most falsely denounce, his associates as not only capable of, but familiar with crimes which would bring other men to the gallows, is absolutely unpardonable. The man who has witnessed all those tender interests and sympathies which the duties of a physician beget between him and his patients, who has felt the weight of that responsibility by which the life of a father, a mother, a husband, a wife, or a child, pressed upon his very soul, who has felt the agony of seeing them in spite of his best exertions, sink into the grave—such a man talks of the indifference of physicians to their patients, of their readiness to sacrifice human life! And this is not a mere casual remark thrown out in a moment of excitement. This language runs through every part of his book, as if the author really believed in its truth. It is repeated again and again with all the earnestness of infuriated passion.

It is unhappily common to find in our profession too much of acrimony, in the disputes which sometimes arise among its members. But we have never before seen a whole profession thus coolly outraged and libelled, by an author who professes to instruct them in the chief parts of their duty. We hardly dare enquire what must be the habitual temper and character of the man, who for years, while he is engaged in the preparation of his book, thus freely cultivates the unkindly feelings towards his fellow-men. One suggestion has occurred to us, to account for all this abuse,—and we would gladly cling to it as an escape from the necessity of believing any man in his senses capable of such profligate depravity of principle as the language in this book seems to imply. It is, the supposition, (perhaps we ought to say the hope) that the

long continued pursuit of a few simple ideas, 'the slow and moderate purging,' 'calomel and opium practice,' and 'counteracting and coinciding agents,' have so engrossed the author's mind as to bewilder his understanding. Aside from the charitable motive we have mentioned for wishing to adopt this opinion, we think the book furnishes some support to this suggestion. Thus for example, although as we have seen, the author's system obviously confounds almost all distinctions in diseases, resolving them into the more general distinctions of type and diathesis, and his practice applies a few remedies to almost all diseases, while he indiscriminately rejects several of the most valuable remedies we possess, yet he speaks, as if he believed it were so, of the indiscriminate practice of the great body of physicians of the present day, and evidently regards himself and his few associates as the only industrious, intelligent, discriminating, honest physicians, that the age affords. We might state other similar aberrations of intellect, with which the book abounds, in further confirmation of the suggestion, but our patience, and we fear that of our readers, is exhausted.

It may perhaps be asked, by some of our readers, if there are no redeeming passages in this book, no better parts, which may be regarded as a counterbalance to those which we have noticed. It is not easy to suppose that a man can have been many years in the practice of medicine without making some observations that may be useful to mankind, and to the profession in particular. We opened Dr M.'s book with the most favourable prepossessions, in the expectation of finding much useful practical information. That we have been sadly disappointed has already appeared. We have never before met with so much presumption, arrogance, and self-conceit, so much impudence and folly, so much abuse and ill-nature, collected into one professional book. We have read every word of it, (and we take to ourselves credit for no small share of patience in having done it,) and we say with confidence, that, in our view, besides those qualities which we have just enumerated, it contains nothing that is new, that is not either false in theory, or rash in practice.

The second part of this volume, by Dr Tully, suffers not a little from the company in which it is found. The author holds in the main to the same general principles, with his colleague; but he does not carry them to the same extravagant lengths; nor advance them with that rancorous spirit which we have noticed in the first part. When he speaks of the diathesis of the disease he describes, he does not forget to point out its symptoms. On the contrary he details them in a remarkably clear and satisfactory manner. To our minds he seems too much wedded

to a favourite hypothesis; but of this we would not greatly complain, so long as he gives us the means of forming our own opinions, by such a full statement of facts. His language, as well as his theories, is moulded somewhat after the same fashion as Dr M.'s, but it is divested of nearly all the asperity and bitterness, which so remarkably characterizes that.

The first essay is a description of the yellow fever as it appeared in Middletown, in 1820. The second, gives a short account of the same disease, as it appeared in Chatham, in 1796; and the third is made up principally of cases of the disease described in the first. The author does not discuss the question respecting the origin of this disease, though it is manifest from a few expressions, that he believes it to have been contagious; and he appears to confound the question of contagion with that of importation in an unhealthy state of the vessel. His principal object in the theoretical parts of the essays, appears to be to establish the position that the disease was asthenic. The same object in regard to a different form of disease runs through the fourth and last essay, which is called an analysis of an account of an epidemic in Virginia, by Dr Miller, which was published in Chapman's Journal. His arguments are principally founded upon a statement of facts similar to those given by Dr M. in the first part of the volume, although the statements are divested of much of the rudeness and extravagance which as we have seen there accompanied them. We would not take up the discussion of this question of diathesis with so discourteous a disputer as Dr M., and we are now too much fatigued by this long article to do it.

We cannot, however, forbear to take notice of the following declaration, though we have so often met it, and passed it by, in Dr M.'s writings.

“*The lancet is a minute instrument of mighty mischief*”—a weapon, which annually slays more than the sword. Antimony alone does more injury, than all the efficient exciting and supporting agents of the *Materia-medica*. These facts are undeniable, and admit of the fullest proof, and that even from the acknowledgments and statements, of the very physicians, in whose practice they have occurred.” —pp. 460, 461.

To this is added the following note.

‘As these assertions have been so often made, in the course of this volume, it is but justice to ourselves, to state the data, upon which they are founded. *It is not a random conjecture or suspicion.* Our particular attention has been turned to this subject for years; and we can safely declare, that within the sphere of our *personal* knowledge, and even from the *statements* of physicians themselves,

on an average, from two to three persons in a population of every thousand, annually fall victims to an obviously injudicious depleting and reducing course. This ratio will give between twenty and thirty thousand for the United States. But, as we reside in a section of the country, where from most of our physicians well understanding the nature of Typhus, there are probably much fewer abuses of this kind, than in most other parts, the calculation is unquestionably *quite too small*, on the whole. The King of Great Britain, without doubt, loses every year more subjects, by these means, than the battle and campaign of Waterloo cost him, with all their glories. It is even questionable, whether his military surgeons, in the *medical* part of their practice, do not slay more of his troops, than fall by the sword of his enemies.' p. 461.

As our authors have given only their own personal observation and opinions, as the ground for these sweeping assertions, we do not feel ourselves called upon to give any other reason for ours, when we say, that we do not believe there is a particle of foundation for the assertions themselves. There may perhaps be individual practitioners who habitually bleed too much; and there may be others who occasionally bleed injudiciously. But, excessive bleeding is not the prevailing fault of the present day.

Nor is it true, as our authors would have us believe, that the danger of erring on this point is all on one side. They have both represented it as an easy thing to remedy the evil arising from omitting to bleed when it ought to have been done, while it is exceedingly difficult to repair the injury caused by injudicious bleeding. We believe the difficulty and the danger to be chiefly on the other side; that is, in all cases in which a physician of tolerable judgment would be liable to commit the error. The proper period for bleeding, in all cases where there can be the *least* doubt as to its propriety, is always short. We are not advocates for indiscriminate bleeding. But we do say with much confidence, that the cases are frequent, where, if bleeding be not practised in the beginning of the disease, no subsequent efforts can repair the mischief which the omission has caused to the system, so as to give the patient an equal chance for a favourable recovery.

We would not have our readers infer our opinion of the second part of this volume, from the shortness of our notice of it, compared with that of the first. The two parts belong to very different classes of writing, and do not deserve to be mentioned together, had not the authors chosen to connect them. We do not see, however, that Dr Tully's essays can become very generally known; unless indeed he has copies of it separately bound. No work, however valuable, can ever be very extensively read, so long as it is thus encumbered; like a Roman criminal, chained to an offensive, loathsome carcass. S.

ARTICLE XIII.

A Treatise on Dislocations, and on Fractures of the Joints. By Sir ASTLEY COOPER, Bart. F. R. S. Surgeon to the King, &c. &c. &c.—1 vol. 4to. 30 plates, pp. 562. Longman and Co. London.

[From the London Medical and Physical Journal.—Concluded from page 294.]

IN our last Number, we brought down our analysis of Sir Astley's work to the conclusion of the chapter on Compound Dislocations of the Ankle-joint; and we now resume the thread of our discourse.

Fracture of the Fibula is well known to be of frequent occurrence, and the signs of the accident are too familiar to render it necessary for us to enter much into detail. The snap described by our author to be felt at the moment, is not, however, an invariable criterion; and therefore we would advise the surgeon, in every severe strain of the joint, to examine carefully whether this bone be broken or not; for we have, upon one occasion, met with an instance where, in consequence of this neglect, the bone remained un-united, and proved a serious inconvenience to the patient in after-life. The mode of discovering this accident is 'by rotating the foot with one hand, and by grasping the lower part of the leg with the other: at each rotation, a crepitus is generally felt.' (p. 353.) The great object in the treatment of this fracture is to preserve the great toe in a line with the patella, and to place the leg on its side in a half-bent position: the application of a well-padded splint, with a foot-piece on each side, becomes therefore in this case indispensable; for, without it, the foot cannot be preserved in the proper position. From the neglect of this precaution, Dr Blair, a naval physician, remained lame after an accident of this description; the foot becoming twisted, 'so that he walked better upon an inclined plane than upon flat ground.'

Fractures of the Tibia into the ankle-joint, or a little above it, are not difficult to be recognized, and their mode of treatment offers nothing novel. In both these cases, Sir Astley recommends the leg to be raised so as to bend and elevate the knee; the leg should rest upon the gastrocnemius muscle, and upon the heel. Our author prefers this position, because it gives the surgeon an opportunity of observing the least deviation in the line of the foot, and because it is easier to the patient.

‘Oblique compound fractures into the ankle-joint generally do very well, if care be taken to procure adhesion of the wound, which is to be effected by applying lint embued in blood to the lacerated skin, and leaving it there until it separates spontaneously.’ The position must vary with that of the wound. Even if suppuration occurs, the patient will generally recover, unless he be much advanced in years.

This chapter, or division of the work, concludes thus:—‘But if, with the compound fracture into the joint, there be much comminution of bone, and bleeding from any large vessel, it will be proper to amputate immediately,—more especially if the patient be obliged to obtain his bread by labour; for, after recovery from great comminution, the limb will bear but slight exertion.’

On Dislocation of the Tarsal Bones.—The dislocation of the astragalus is the first in order; but it is a rare occurrence, though a most serious accident when it does take place; for the reduction is difficult, and a considerable degree of lameness ensues if it be not reduced. A case in illustration is added, in which, although extension had been employed to a great degree immediately after the accident, it was found impossible to restore the bone to its situation, and the appearance of the limb is as follows:—The toes are turned inwards, and pointed downwards; and there is but a slight degree of motion at the ankle. In these cases, the use of the pulleys will be required, and the action of the muscles should be lessened by doses of the tartarized antimony. Compound dislocation of the astragalus is, of course, still more serious in its nature; and there appears to be no alternative in these cases, but amputation of the limb or removal of the bone; for the reduction, although mentioned to have been successful in one instance, is not otherwise hinted at in this chapter, which contains no further instructions than such as the reader will derive from the detail of some highly interesting cases of this accident; in four of which the bone was removed with the knife, and the patients recovered with tolerable motion of the joint. We shall detail the leading features of the two most interesting of the above cases; in one of which it will be seen that the attempts made to reduce the dislocation were unavailing. Sir Astley here very justly inculcates the propriety of surgeons being upon their guard in amputating limbs and performing operations, as the resources of nature are sufficient, under very formidable circumstances, to effect restoration; a sentiment in which we are most happy to coincide with him upon this occasion.

The first case we shall abridge is that of Mr Downes, in which,

although the dislocation was not exactly compound, 'the bone was dislocated forwards and inwards, projecting so as to make the case perfectly clear, and bearing so strongly against the skin that a slight incision would have exposed it.' The patient met with the accident on the 24th July, 1820, and had been visited by Mr West, who had tried to reduce the bone into its situation, but which could not be effected. The patient was largely bled, the limb placed in splints, a goulard lotion applied, and an anodyne given. Sir Astley, who saw the patient on the following day, at first thought of dissecting away the astragalus, but finally determined to wait, in the expectation of the skin giving way; he therefore continued the previous treatment. On the following days, some local and general irritation of the system took place, which was combatted by leeches applied to the part, and the exhibition of saline antimonial medicines. On the 10th August, the skin became disposed to slough, opposite the projection at the inner ankle: fomentations and a yeast poultice were applied, and bark and wine administered internally. On the 16th, the skin sloughed; on the 20th, the astragalus became exposed. The same means were continued; the inflammation and discharge gradually lessened; the bone became gradually dislodged by the sloughing or ulcerating of the ligament. In September the patient was removed to London; and on the 5th of October, the astragalus being 'very loose,' Sir Astley removed it with the forceps, dividing only some slight ligamentous adhesions. Some exfoliations occurred in December, but at the end of that month he began to walk. In October 1821, Mr Downes had slight motion of the ankle, which has been gradually recovering. This case is illustrated by a very beautiful plate.

The other case to which we have alluded above was under the care of Mr Green, whose account of the nature of the accident we shall copy verbatim.

'Thomas Toms, twenty-three years of age, was admitted into St Thomas's Hospital, on the 14th July, 1820. He had fallen, whilst engaged in his business, (that of a bricklayer,) from a three-story scaffold, and his descent had been arrested by his foot catching between the spikes of an iron railing, from which he hung with his head nearly touching the ground. A wound was found, extending beneath the inner malleolus of the left leg; and the head of the astragalus, which was torn from the articulatory surface of the os naviculare, protruded through the divided integuments. Part of the articulatory cartilage of the displaced bone had been separated, and the bone was girt by the edges of the wounded skin, which was puckered under it. The tendons of the tibialis anticus and of the flexor muscles were tightly stretched, and the foot was turned rather

upwards and outwards. Further examination showed that the posterior tibial artery was torn through, and that the accompanying nerve was partially lacerated. An attempt was made to reduce the luxated astragalus, by fixing the knee, after having bent the leg upon the thigh, and by making extension of the foot directly from the leg, laying hold of the heel with one hand, and placing the other on the dorsum of the foot. This however failed; and, as it appeared that the skin which firmly embraced the bone beneath prevented the replacement, it was divided, and the extension renewed, but with the same unsuccessful result. This difficulty seemed to arise from the small size of the wound in the capsule of the joints, and in consequence of the bone being tightly held by the tendons.' (p. 371.)

Under these circumstances, Mr Green was induced to consider whether amputation ought not to be proposed; but Sir Astley Cooper, after carefully examining the limb, suggested that the astragalus might be removed. This was accordingly done by Mr Green, who first tied the posterior tibial artery, and then the bone was dissected from the ligaments without much difficulty. The parts were then brought together, and the wound closed with adhesive plaster; the leg was placed on its outside on a well-padded splint, with a foot-piece; the foot was supported above the level of the knee; and an evaporating lotion constantly used. We do not think it necessary to detail the symptoms that ensued from day to day: constitutional irritation, swelling, inflammation, and suppuration, took place, but not to any alarming degree. On the eighth day, it appears that the pulse was 86, and the wound had a healthy granulating appearance. He continued to recover from this time until the 29th of July, when an abscess formed; but which was opened on the 1st of August, and the feverish symptoms disappeared. Two other abscesses, and a sinus running up the calf of the leg, afterwards contributed to retard his recovery; but, by the 25th of October, the discharge had entirely ceased, and he was capable of performing flexion of the foot to a considerable degree, but could not extend it. He was discharged from the hospital on the 2d November, and has since been enabled to resume his usual occupation.

We pass over a few pages, and pause at the chapter on *Dislocation of the Jaw*, in order to relate the following method of reducing it, which in many instances possesses great advantages over the method commonly practised. A madman dislocated his jaw, and Sir Astley very properly adds:

'I thought a surgeon must be as insane as the patient who would employ the usual means of reduction, and I therefore desired the keepers to place the patient on a table upon his back, with a pillow

under the head, and that he should be held by several persons. I ordered two table-forks to be brought me, and wrapped a handkerchief round their points; then, placing myself behind the patient's head, I carried the handles of the forks into the mouth, on each side, behind the molares teeth: then directed them to be held; and then, placing my hand under the chin, I forcibly drew it to the upper jaw, which was used as a lever upon them, depressing the processes as the jaw was elevated, and thus directing the bone backwards into its natural situation. But, as wood is liable to injure the gums, it is better to substitute two corks, which are to be placed behind the molares teeth, on each side of the mouth, and over these the chin is to be raised.' (p. 390-1.)

A piece of wood has sometimes been used as a lever, first on one side, and then on the other; but our experienced author prefers the corks, the recumbent posture, and the elevation of the chin. Great relaxation of the ligament of the jaw sometimes occurs, especially in young females; and a *snapping* is felt in the maxillary articulation, arising from the jaw suddenly slipping into its socket, which the relaxation had permitted it to quit. The internal exhibition of steel and ammonia, the shower-bath, and a blister applied before the ear, have been found usually to remove this troublesome complaint. In a case of this kind which occurred to us some years back, electricity alone removed the complaint.

We pass by the account of *Dislocations of the Clavicle*, as containing nothing remarkably novel: they are not of very frequent occurrence, nor are they difficult to detect or to reduce; but it must be remembered, says our author, that, after the utmost care in the treatment, 'some slight deformity will remain; and it is necessary, from the first moment of the treatment, that this should be stated to the patient, as he may otherwise suspect that it has arisen from the surgeon's ignorance or not.' (p. 402.)

The chapter on Dislocations of the *Os Humeri* is preceded by a concise, but very perspicuous, description of the structure of that joint, but which we do not deem it necessary to detail.

Dislocation of the os humeri may take place in four directions: three of these are complete, and one is partial. The first is downwards and inwards, or into the axilla. The second is forwards under the pectoral muscle, when the head of the bone is placed below the middle of the clavicle, and on the sternal side of the coracoid process. The third is backwards, when the head of the bone can be both felt and distinctly seen, forming a protuberance on the back and outer part of the inferior costa of the scapula, and is situated upon its dorsum. The fourth is only partial, when the anterior portion of the capsular ligament is torn

through, and the head of the bone is found resting against the coracoid process of the scapula, on its *outer* side.

Sir Astley has never seen the os humeri dislocated upwards : it can only happen in conjunction with fracture of the acromion.

On the comparative frequency of these accidents, our author says that he has seen a *multitude* of instances of the dislocation into the axilla ; of the forward one, *several* ; and of the dislocation backwards, only *two*, in a practice of thirty-eight years. He does not believe that, after dislocation, any change takes place, the muscles having once contracted ; so that, excepting from circumstances of great violence, the nature and direction of the dislocation are not subsequently altered.

The usual signs of the dislocation into the axilla are too well known to need repetition here ; but Sir Astley observes, that the head of the bone cannot be felt in the axilla unless the arm be removed from the side ; and, from a neglect of which precaution, he has seen surgeons deceived, and give a wrong opinion as to the nature of the accident. It must be recollected that, though certain motions of the limb are lost in consequence of this dislocation, much difference in the degree of that motion will arise in the age of the patient ; for, in old people, the relaxed state of the muscles will sometimes permit the arm to be carried to the upper part of the head. Crepitus sometimes is slightly felt on first moving the limb, but by a continuance of the motion it ceases. This accident is therefore principally detected by the fall of the shoulder, the presence of the head of the bone in the axilla, and the loss of the natural motions of the joint ; but, as these circumstances become obscured after a few hours, by extravasation of blood and the great swelling that ensues, and which after a lapse of some time becomes absorbed. If, says our author, 'we at this period detect a dislocation which has been overlooked, it is our duty, in candour, to state to the patient, that the difficulty in the detection of the nature of the accident is exceedingly diminished by the cessation of inflammation and the absence of tumefaction.' (p. 419.) This is liberal and candid ! Would to heaven that we met with it as often in practice as in precept.

An account of the dissection of two cases of dislocated shoulder is subjoined, which afford the following important considerations. After having exposed and described the lesions of the muscles and the condition of the joint, our author next endeavoured to reduce the bone, but found the resistance such as he could not overcome, and he therefore proceeded, by dividing one muscle after the other, to ascertain from whence the resistance proceeded : he found the supra spinatus muscle to be the

great opponent; but, when this was relaxed by raising the arm directly upwards, the head of the bone glided into the glenoid cavity. This leads to the practical conclusion, that, in this dislocation, the arm should be raised horizontally, rather than brought obliquely downwards, and the biceps is to be relaxed by slightly bending the arm. In an old dislocation, which had been long unreduced, the following circumstances were observed:—‘The head of the bone is altered in form, the surface towards the scapula being flattened, and a complete capsular ligament covers the head of the os humeri. The glenoid cavity is completely filled by ligamentous matter; small portions of bone are suspended in this ligamentous matter, which appear to be of new formation, as no portion of the scapula or humerus is broken. A new cavity is formed for the head of the os humeri, on the inferior costa of the scapula; but this is glenoid, as that from which the os humeri had escaped.’ The shoulder, when once dislocated, is known to be frequently very liable to a recurrence of the accident, the slightest motion of the arm sometimes causing the displacement of the bone,—of which two or three instances are mentioned: but this may be prevented by fixing the arm to the side for two or three weeks, during which time the ruptured tendons and ligament will become united, an event which the motion of the arm either impedes or wholly prevents.

Of the Reduction of the Dislocation in the Axilla.—Many methods of replacing this dislocation have been recommended; that which Sir Astley usually adopts in his private practice is performed as follows:—The patient is placed in the recumbent position; the surgeon then binds a wetted roller round the arm just above the elbow, upon which he ties a handkerchief; then, with one foot resting upon the floor, he separates the patient's elbow from his side, and places the heel of his other foot in the axilla, receiving the head of the os humeri upon it; he then draws the arm, by means of the handkerchief, *steadily* for three or four minutes, and, under common circumstances, the head of the bone is easily replaced. If more force should be required, a long towel may be substituted for the handkerchief, by which several persons may pull. The fore-arm should be bent at right angles with the arm. Extension may be made from the wrist, but it requires more force, although it has this advantage—the bandage is not liable to slip. Should the above plan fail, (which, if the person be very muscular, or the accident has happened some time, it frequently will,) then more force is required. We need not describe the minute steps of a process so universally known, but we cannot too often repeat the very important rule, that to fix the scapula is the *principal* object before extension of the

arm be employed. The bandage used at Guy's Hospital for this purpose is a girt buckled on the top of the acromion, so as to raise the bandage high in the axilla. The extension is to be made slowly and steadily, the arm being either at right angles with the body, or rather above it. Sometimes a gentle rotatory motion of the arm during the extension diminishes the opposition of the muscles.

The third method, of reduction by pulleys, is resorted to when both the above methods fail, and is applicable principally to those dislocations which have remained a considerable time unreduced. Sir Astley observes, that the pulleys are not employed simply in order to obtain a greater degree of power, but on account of the gradual and equal manner in which the force can be employed. There is no difference in the position of the patient, nor in the bandages employed in this latter case; but the surgeon should first draw the pulley himself, and, when pain is complained of, he should cease to draw, keeping up the degree of extension, and conversing with the patient, to direct his mind to other objects. After a pause of two or three minutes, the extension may be renewed until pain is again complained of; thus alternating for a quarter of an hour, at intervals rotating the arm. The bone, in this instance, generally passes into the socket without the snap which is heard when other means are employed. Sir Astley, in his hospital practice, employs bleeding, the warm bath, and nauseating doses of tartarized antimony, previously to employing mechanical means; and these very much lessen the necessity of employing very considerable force. Mr H. Cline was in the habit of directing his patients to support a weight for some time before extension was begun, in order to fatigue the muscles. A small cushion in the axilla, and the stellate bandage, together with a sling to support the arm, should be worn for some time after. The simple method of placing the knee in the axilla, first separating the arm from the side, and then pulling the arm downwards with one hand, whilst the other rests upon the acromion scapulæ, has frequently succeeded, says our author, even with muscular persons, when in a state of intoxication. The plan recommended by Mr Kirby, of Dublin, is then described, and spoken of with approbation.

The *Dislocation forwards*, or behind the pectoral muscle, is more distinctly marked than that just described; as the hollow below the acromion is much more considerable, and the head of the bone can be distinctly felt, and in thin persons even seen, and which rotation of the arm makes more evident. The arm is also somewhat shortened, and the elbow is thrown more from the side than in the former case. We shall omit noticing the

dissection of this accident, because it does not lead to any practical inference, and proceed at once to the mode of reduction; and upon this point we have merely to observe, that the bone must be drawn downwards and a little backwards; and, if the foot is placed in the axilla, it is requisite to bring it more forward. In those cases where it is necessary to use pulleys, the extension must be kept up longer than in the former dislocation, as the resistance is greater.

Dislocation of the Os Humeri on the Dorsum Scapulae.—Only two cases of this accident have occurred at Guy's Hospital in thirty eight years. It cannot be mistaken, as the head of the bone forms a protuberance upon the scapula, which, when the elbow is rotated, moves also; the dislocated bone may also be easily grasped between the fingers, and distinctly felt resting below the spine of the scapula. The first case which occurred was reduced in a few minutes by the same means as those employed in the dislocation in the axilla; and the second case was treated, with equal success, in a similar manner. Three other cases of this kind are recorded; one by Mr TOULMIN, and two by Mr COLEY, of Bridgnorth.

The partial dislocation of the os humeri is not a very uncommon accident, and the following are its usual marks:—There is a depression opposite the back of the shoulder-joint, and the posterior half of the glenoid cavity is perceptible, from the advance of the head of the bone; the axis of the arm is thrown inwards and forwards; the elevation of the arm is prevented by the head of the humerus striking against the coracoid process; and there is an evident protuberance formed by the head of the bone in its new situation, which is felt readily to roll when the arm is rotated; in this accident the anterior part of the capsular ligament is torn. The mode of reduction is the same as that employed in the dislocation forwards; but it is necessary to draw the shoulders backwards, to bring the head of the bone to the glenoid cavity; and, as soon as the reduction is effected, the shoulders should be bound back by a clavicle bandage, or the bone will immediately slip forwards again. Our author observes that, where dislocation is complicated with fracture of the head of the os humeri, reduction is much easier than in simple dislocation, as the insertion of the principal opponent muscles, the supra and infra spinati, is removed; but it renders it more difficult to retain the bone within the glenoid cavity, when it is replaced.

A case of compound dislocation of the shoulder-joint forwards, which occurred in the practice of Messrs SAUMAREZ and DIXON, of Newington, is narrated. The patient, aged fifty-five, was in-

toxicated at the time the accident happened. There was no difficulty in returning the os humeri into its situation; but, of course, great constitutional disturbance ensued, and the wound suppurated copiously; abscesses formed in various parts round the joints, and sinuses resulted from some of them. Nevertheless at the end of fourteen months, the man recovered with an anchylosed joint, but with free motion of the fore-arm, which enabled him to handle his pen for all the purposes of business.

It has occurred to the writer of this article to see the head of the os humeri shattered by shot and splinters of shells upon several occasions. Two of these cases, in which amputation had not been performed in the first instance, terminated favourably, —the whole head of the bone being discharged from the wound, in three or four successive portions. Abscesses, of course, were formed in the neighbourhood of the joint, and the constitution sympathised with the local injury, but not, at any moment, to such an extent as to make the ultimate recovery of the patient at all doubtful. The joint was anchylosed, but the lower arm was capable of performing its usual offices.

From this digression we return to notice a few accidents which are liable to be confounded with dislocation of the shoulder-joint. The first is *fracture of the acromion*. On this occasion the roundness of the shoulder is lost, part of the attachment of the deltoid muscle being broken off; the arm sinks towards the axilla as far as the capsular ligament will permit; but, upon raising the arm, the form of the shoulder is at once restored; and, on tracing the acromion from the spine of the scapula to the clavicle, a depression is felt at their junction. The best way, therefore, to detect this accident is to raise the elbow, and then rotate the arm, when a crepitus will be felt at the point of the shoulder. The patient, directly after the accident has happened, feels as if the arm was dropping off, with a great sense of weight, and but little power to raise it. Bony union will take place in this fracture if the parts can be kept in contact. The best method to ensure this is to raise the elbow, and to fix the arm; and, if it be kept steadily in that position, it will support the broken process, and keep it in its place: a cushion should be placed in the axilla, to relax the deltoid muscle; the arm should then be bound to the chest by a roller, and kept in that situation for three weeks.

Fracture of the neck of the scapula is illustrated by the case of a young lady who was thrown from a gig, and who was told by the surgeon who was first sent for that her shoulder was dislocated: by extension, all appearance of dislocation was removed, and the arm was bound up; but the next day the arm reassumed all the marks of dislocation. Sir Astley, who was requested by the sur-

geon to see the patient, by raising the arm from the elbow, and the head of the bone in the axilla, restored the natural appearance of the parts, but, as soon as the support was removed, the arm immediately sunk : he then rotated the elbow, and pressing the coracoid process of the scapula with his fingers, distinctly heard a crepitus. A thick cushion was placed in the axilla, and the bone was retained in its situation by a clavicle bandage for seven weeks, when it became united without deformity. Our author remarks, that the laceration of a ligament which passes from the under part of the spine of the scapula to the glenoid cavity, and which is not usually noticed in anatomical works, is the cause of the deformity in this case.

Fracture of the neck of the os humeri sometimes occurs in the young and in the old, seldom in middle age. In this case the body of the humerus sinks into the axilla, and the roundness of the shoulder is lessened ; the arm cannot be supported, nor the elbow raised from the side, without the assistance of the other hand ; crepitus could not be felt by rotating the arm, but by raising the bone and pushing it outwards. The treatment consists in rolling the arm from the elbow to the shoulder, applying a splint both on the inner and outer side, placing a cushion in the axilla, and supporting the arm gently with a sling. If the arm be too much raised, the bones may overlap, and deformity will ensue.

The great length to which this article has already extended compels us to be concise in our notice of the remaining portion.

Of *dislocations of the Elbow-joint* five different species are enumerated :—1st, the dislocation backwards of both bones ; 2dly, their displacement laterally ; 3dly, the dislocation of the ulna separately ; 4thly, the dislocation of the radius forwards ; and, 5thly, the dislocation of the same bone backwards. The first accident is strongly marked, and cannot well be mistaken. The mode of reducing it is, either by placing the patient in a chair, when the surgeon applies his knee to the inner side of the joint in the bend of the arm, and, taking hold of the patient's wrist, he bends the arm, at the same time pressing on the radius and ulna with the knee : or the patient's arm may be placed round the post of a bed, and forcibly bent in this situation. This dislocation may be reduced even after the lapse of many weeks. When the bones are replaced, the arm should be bandaged in the bent position and put in a sling.

The second, or lateral dislocation, may be reduced by the same means, and with the same facility as the former ; and it is also well marked.

The dislocation of the ulna backwards produces much deformity of the limb, the fore-arm and hand being twisted inwards. It

is rather difficult to detect, but it is more easily reduced than when both bones are displaced. The best method is to bend the arm over the knee, and to draw the fore-arm downwards.

Of the dislocation of the radius forwards, Sir Astley has seen six examples; the marks are the following:—The fore-arm is slightly bent, but cannot either be perfectly extended or brought to a right angle; when it is suddenly bent, the head of the radius strikes against the fore-part of the os humeri, and neither pronation nor supination can be perfectly performed; and, if rotation of the hand be attempted, the bone will be seen to roll. In this case the head of the bone rests in the hollow above the external condyle of the os humeri. It appears to be an accident difficult to reduce. In the two first cases mentioned by our author, all attempts were unsuccessful; in the third and fourth cases, the bone was replaced. The last patient was placed upon a sofa, and the arm was bent over the back of it, and then extension was made from the hand, without including the ulna; and this seems to be the most likely mode of succeeding.

Sir Astley has never met with an instance of the dislocation of the radius backwards in the living subject.

Fracture of the condyles of the os humeri just above the joint, may be easily mistaken for the backward dislocation of the radius and ulna. The distinguishing marks are, that, by rotating the arm, a crepitus may sometimes be felt; and the appearances are removed by extension, but return the moment the extension ceases. It is an accident more liable to occur to children than adults. It is to be treated by bending the arm and drawing it forwards, and then rolling it up; the best splint is one bent at right angles, placed behind the upper arm, the lower portion under the fore-arm. The arm must be kept in the bent position. If the patient be young, passive motion may be begun in a fortnight; but, under the best treatment, there is, says our author, sometimes considerable loss of motion.

Sir Astley mentions a fracture of the coronoid process of the ulna; of which one case, which was unreduced, is mentioned. He seems to doubt whether this accident can be rectified; 'as the coronoid process, like the head of the thigh-bone, loses its ossific nourishment, and has no other than a ligamentous support.' (p. 485.) It is however proper to keep the arm steadily bent for three weeks after the injury, that the ligamentous union may be as short as possible.

We shall pass over the fracture of the Olecranon, as both the nature of the accident and the mode of treating it are pretty universally understood; and the nature of the accident is so

clear as to render it scarcely possible to confound it with any other.

We also pass over many pages descriptive of a variety of minor accidents, all highly necessary to be known by the surgeon, but which our limits will not permit us to dwell upon, in order to mention *dislocations of the Thumb*, because they are accidents very difficult to reduce, on account of the numerous strong muscles which are inserted into this part. In the dislocation of the metacarpal bone from the os trapezium, the bone is usually thrown inwards; the thumb is bent backwards, and cannot be brought towards the little finger. As the flexor muscles are so much stronger than the extensors, it is best to incline the thumb towards the palm of the hand during extension, which must be steadily kept up for a considerable length of time: but if simple extension, carried to the extent that prudence warrants, does not succeed, it is best to leave the case to nature. Of compound dislocation, one very interesting case is mentioned, in which that accident occurred from an explosion of gunpowder. The surgeon, Mr G. COOPER, of Brentford, who first saw the patient, perceiving that both the flexor and extensor tendons were uninjured, restored the bone to its situation; and the result was recovery, with very useful motion of the thumb. We need not detail each separate form of these dislocations, but merely observe, that the plan of reduction is essentially the same in all: the object is to relax the flexor muscles as much as possible; the hand should then be steeped in warm water, to contribute towards the relaxation of the parts; a piece of wetted leather is next to be closely applied round the first phalanx of the thumb; a portion of tape, about two yards in length, is then placed upon the leather, in that form of knot called by sailors the 'clove hitch,' and which is drawn tighter as the extension proceeds. 'An assistant places his middle and fore-finger between the fore-finger and thumb of the patient, and makes the counter-extension; whilst the surgeon, assisted by others, draws the first phalanx from the metacarpal bone, directing it a little inwards towards the palm of the hand.' (p. 533.) If this plan does not succeed, we are directed, after having applied the leather and sailor's knot as above, to place a strong worsted tape between the metacarpal bone of the thumb and fore-finger; the arm is then to be bent around a bed-post, and the worsted tape fixed to it; a pulley is hooked to the tape which surrounds the first phalanx, and extension is then to be made. This method, it is added, is almost sure to succeed. In compound dislocations of the first or second phalanx, our author thinks it best, if reduction cannot be effected, to saw off the extremity of the phalanx.

A few observations on dislocations of the Ribs brings us to the last division, on *Injuries of the Spine*. It has been generally stated by surgeons, that dislocations of the spinal column frequently occur; but if luxation, says Sir Astley, *ever does happen*, it is an injury which is 'extremely rare, as in the numerous instances which I have seen of violence done to the spine, *I have never witnessed* a separation of one vertebra from another, through the intervertebral substance, without fracture of the articular processes; or, if those processes remain unbroken, without a fracture through the bodies of the vertebræ.' p. (539.) We conceive a few simple experiments upon the dead body might set this question at rest; for, as our neighbours, not long ago, tumbled dead bodies down stairs, and threw them from considerable heights, to ascertain the possibility of rupturing the liver by the concussion, the same plan might perhaps be applied more rationally in order to ascertain whether external injuries can dislocate the spinal column, exclusive of fracture. Of course, these observations apply to the dorsal vertebræ principally; it is well known that the upper cervical are occasionally dislocated. Sir Astley gives us a clear and excellent anatomical description of the vertebral column; but we must draw to a conclusion, observing that, in the fractures and displacements of this column, whatever plan be adopted, the result is uniformly unfortunate. The case in which Mr H. CLINE trepanned the fractured vertebræ, with the intention of relieving the spinal marrow from pressure, is recorded. The case was unfortunate; and it is added, that Mr H. Cline was blamed for making the trial. We have already, in another place, stated our reasons for believing that this operation is not likely to prove successful; but we are far from attaching blame to the attempt: on the contrary, we look upon it as rational and scientific, and highly deserving of our warmest approbation. It is only by such means that our doubts can be resolved, and our art brought to perfection.

We have now finished our analysis of this long and interesting work: we have dwelt chiefly upon those parts which we thought the most important, and the least generally understood. The space which we have devoted to our task is a sufficient proof of the importance we attach to it; and we shall make no apologies to Sir Astley for the few criticisms which we have hazarded upon particular points: they are put forth in a plain, honest, and (we hope) a respectful manner; and we are much mistaken if the eminent author himself (even should he be disposed to deny the correctness of our deductions,) will not be the foremost to admit that they have been urged with a due attention to those rules of

conduct which we promised not to lose sight of when we first engaged in the dangerous profession of criticism.*

SELECTIONS.

Case of Sphacelus from injury, Successfully treated by Amputation, with Observations. By WILLIAM MATHEWS, Licentiate, Royal College of Surgeons, Edinburgh.

MORTIFICATION, from mechanical injury, is at its commencement unequivocally of a local nature; but the rapidity with which it advances and affects the system, is often very surprising. From the celerity with which the system is affected, it is obvious that amputation will not be done under favourable circumstances, unless promptly performed; as by the delay of a very inconsiderable space of time, the powers of the constitution may be irreparably exhausted; nor would it be fair to deduce unfavourable conclusions from an operation undertaken at that period. That amputation may be successful, it is necessary that it be early performed; and, even were it sometimes to fail, under favourable auspices, we ought not to draw from thence an insuperable argument against the practice; as, in a disease of such a fatal tendency, not the general, but the most frequent success is sufficient to establish the mode of treatment. In the present case, amputation ought the more readily to be concurred with, as the other resources of medicine are scarcely sufficient to afford a hope of stopping the progress of the disease, or of enabling the system to withstand its effects.

The authors who support the propriety of delaying the operation till the line of separation be distinctly formed, seem to be much afraid of it inducing additional irritation and debility, when performed before that period. This objection seems more specious, than well grounded; for if properly performed, and in due time, the system is not likely to suffer much from the mere effects of the operation. In the cases which Larrey and Lawrence record, amputation seems to have been followed, with the similar good effects, subsequent to that operation, performed in consequence of incurable white swelling. In the following case, the operation was attended with the most quick and beneficial effects.

* We have to acknowledge the receipt of a polite letter from Mr EVES, of Colford, pointing out a mistake in the former part of this analysis. In mentioning the dislocation of the femur downwards, we have said, (p. 137,) "the limb is *shorter* than the other:" the word ought obviously to have been *longer*.—EDITORS.

Early in the morning of the 16th May, 1821, I was called in consultation, on the case of a young man, who had ten days previously received a violent compound fracture, of both bones of his leg. It appeared, from the account that I obtained, that the end of a weighty cask had fallen from some height on the outside of his leg, above the middle, had penetrated the soft parts to the bones, and forced their upper fractured extremities through the integuments of the opposite side. The wounds thus occasioned were extensive, and bled profusely; and the anterior tibial artery having been divided, required to be secured. The bones much comminuted, the soft parts extensively contused and divided, the second artery in the limb tied, and the situation of the patient, who was on ship-board,—all formed a complication of unfavourable circumstances, which precluded any well founded hopes of saving the limb, and seemed to indicate the necessity of its speedy removal. Amputation was accordingly proposed; but the man refused to submit to it, with persisting obstinacy. The leg was therefore laid in as easy a posture as possible, and the usual treatment of compound fractures adhered to. Notwithstanding every attention, the inflammatory symptoms became severe, the leg much swollen, and the discharge from the wounds thin, profuse, and of a bloody colour. 15th May (9th day after the accident,) was marked with an aggravated severity of the fever, and a considerable increase of the pain, which he described as being of the scalding kind. On undoing the bandages, the discharge was noticed to be more profuse than usual, and of a very offensive smell. A considerable portion of the limb displayed a dull leaden appearance, and the cuticle was found to be detached from the skin, by the intervention of a thin ichor. True sphacelation had succeeded these precursors, and, I was informed, was rapidly extending.

Upon examination, it was found that the sphacelation had extended beyond the place of fracture, and had reached within a short distance of the knee-joint. The skin above the completely sphacelated portion, exhibited a dull leaden appearance, which insensibly terminated further up in the natural colour. The insertion of a director from the wound in the inner side, could distinguish the detachment of these discoloured integuments from the subjacent muscles, up to the tuberosity of the tibia; the muscles being doughy and soft, and the cellular substance distended with gas. The sphacelus was of a dark brown appearance, except in the vicinity of the wound, which was of a dirty red, and of very soft consistence, as it was forced into a pulp by a very moderate degree of pressure. The pulse quick, in a state of com-

pressed hardness ; heat of the surface variable, and the face and the breast partially bedewed with a clammy moisture ; the tongue dry and furred ; thirst urgent ; his eyes were sunk ; he was afflicted with great restlessness, and at times delirium.

Such being the circumstances of the case, the mortification rapidly extending and wasting the powers of the patient, amputation was resolved on, as affording the best, if not the only chance of saving life ; and as the sphacelation had involved the parts almost as high as the knee, it was done as near above that joint as possible. After the operation, a full opiate was administered, and the patient directed to be kept as quiet and easy as his situation would admit.

17th May.—Has passed a good night ; restlessness considerably abated ; pulse still frequent, but softer than yesterday, tongue furred, bowels costive. *Hab.* statim ol. ricini ʒvi. light diet ; opiate at bedtime. 19th.—Considerably improved. Castor oil excited some fetid stools of a black colour. Tongue more clean ; bowels regular ; some desire for food ; little thirst or heat of skin. 20th.—Continues to improve. Dressed the stump ; discharge gleety, and some sloughing in the cellular substance. Appetite good.

I was sorry that I was deprived of an opportunity of observing the further progress of the case. However, no bad symptoms supervened ; the sloughing soon subsided ; the ligatures were all detached before the 20th day ; and on the 27th June, when I saw the man, he had greatly regained his former healthy appearance, and declared that he felt as well in health as ever he was.

Hatfield, by Doncaster, 26th October, 1822.

[Edinburgh Medical and Surgical Journal.]

Case of Laceration in the Fibres of the Gastrocnemius Muscle, treated without Rest or Confinement. By E. BARLOW, M. D. Bath.

THE narration of this case, for the better judgment of our readers, we shall give in the Author's own words :

‘ A few months ago, while crossing a street at night-time, I incautiously struck my foot against an elevated flagway. The force of collision was great, and I instantly fell, experiencing the most excruciating pain in the calf of the leg. Swelling of the limb ensued almost immediately, and, ere I reached my own house, the swelling was considerable. Simple treatment was employed for that night ; and next morning, having no doubt that a rupture of fibres had taken place in the fleshy belly of the gastrocnemius muscles, being of a full habit, and satisfied that the

first object was to prevent inflammation, by reducing plethora and lessening arterial action, I lost twenty-four ounces of blood from the arm, and took a saline purgative. By this means inflammation was obviated, and the progress of serous effusion in the limb arrested. Immersing the leg night and morning in warm water, I found the most soothing local treatment; and on these occasions, gentle friction, facilitated by the use of soap, was grateful. Sensible support was experienced, by bandaging the leg from the foot to the knee every morning with a calico roller, which was removed at night.

‘In a few days I had recourse to an embrocation composed of soap liniment, camphorated spirit, and spirit of ammonia, which was employed with increased diligence on the sanguineous extravasation becoming more manifest from the absorption of the serous effusion. The ecchymosis was considerable, and appeared first in the lower parts of the limb, to which the extravasated blood had speedily gravitated. I did not confine myself a single day, but pursued my ordinary avocations, by the aid, first of a wheel-chair, and afterwards of a walking-stick.

‘Such was the course of treatment employed, the success of which will appear from the following results. In ten days I was enabled to dismiss my wheel-chair; in a fortnight I relinquished my walking-stick; within three weeks even the bandage was laid aside; and, in a day or two more, I could walk without halting, and descend stairs as before the accident, this latter power being that to which I was latest restored. Although recovery was thus speedy, yet, judging from the intensity of pain, from the rapid swelling and great enlargement of the limb, and from the extensive ecchymosis, I can have no hesitation in pronouncing the accident to have been very severe.’ [Ed. Med. and Surg. Jour.

Observations, with Cases, of Tic Douloureux and Rheumatism of the Head, successfully treated by the Carbonate of Soda and the Prussic Acid. By THOMAS TAYLOR, F.R.C.S. Cricklade, Wilts.

SINCE the publication of the excellent work of Mr Hutchinson, of Southwell, on *Tic Douloureux*, the attention of practitioners has been more closely drawn to the consideration of those distressingly important affections, comprised under the term *neuralgia*, a term first applied to them by the veteran Chaussier; and although the ferri sub-carbonas may not be possessed of powers sufficient to entitle it to the name of *specific*, it certainly appears to do more, by way of alleviation, than any remedy with which we are at present acquainted. The object of the communication

before us is, to recommend the carbonate of soda and the prussic acid, in the diseases mentioned in the title: in such derangements, the latter, according to Mr Taylor, appears to possess almost the powers of a specific; indeed, he has never seen one instance in which it has failed, 'when properly attended to, producing almost immediate relief, and removing entirely the complaint.' 'In two cases, only, of *tic douloureux*,' says he, 'have I known the disease to return after its use; and each case was at the distance of a twelvemonth. By having recourse again to the medicine, it was immediately and permanently cured, at least to the present time, now nearly two years since the last attack in each case.'

Case 1st. Is an instance of *tic douloureux*, affecting principally the *portio dura*, which had persisted for some years, notwithstanding the use of a variety of medicines, anodynes, blisters, stimulating and sedative liniments, &c. &c. Mr Taylor recommended the carbonate of soda, in drachm doses, combined with five grains of Ext. Conii, in cinnamon water, twice a day; by following up this plan for three weeks, the patient got well.

Case 2d. Is one of *Hemicrania*, which Mr Taylor has improperly denominated *Clavus Hystericus*.*

In the first attack he experienced much relief from the carbonate of soda and extractum conii, but in a subsequent one, these means did not afford equal benefit; he was therefore put upon the use of the prussic acid; under the use of this substance he improved so rapidly, that it was not necessary to continue it after the eleventh day.

Four other cases are related, all of which experienced the most important amelioration from the use of the prussic acid, commencing, generally, with two drops in the course of the day, and increasing it in some of the cases by one drop a day, until in one instance six drops were taken; the disease, however, according to Mr Taylor, generally yielded before that period.

The cases, above referred to, are said to be the first in rotation, of many, which have been treated with equal success.

[*Ed. Med. and Surg. Jour.*

* Mr Taylor does not appear to us to perfectly comprehend the meaning of this term. In *clavus hystericus*, the pain is circumscribed, and said to resemble the sensation, which a nail driven into the head would be likely to occasion: hence the name *clavus*; whereas, in the case before us, the pain occurred in the left side of the head and face, and consequently was by no means circumscribed. *Clavus Hystericus* and *Rheumatism of the head*, are considered, but erroneously, by our author, as synonyms. ED.

Case of Tic Douloureux, successfully treated by Purgatives. By
ANDREW WILSON, M.D., Senior Physician to Kelso Dispensary.

IN my Letters on Morbid Sympathy, published in 1818, when remarking on the subject of chronic rheumatism; having there expressed an opinion, that the disease designed [designated?] tic douloureux, is a morbid sympathy, depending on a primary cause, seated in the digestive organs; mentioning, at the same time, some instances of recovery, by a treatment founded on that principle. In corroboration of this idea, I take the liberty at present of transmitting to you the accompanying case, as a further demonstration of the origin of that excruciating and unmanageable disease, if you choose to give it a place in the Medical Journal.

1822, July 5th.—Peter Sorry, a farm servant, æt. 18, is affected with tic douloureux in a most severe degree. He describes the pain as always commencing at a point in his upper lip, on the right side, where it is joined by the alæ of the nose, from which it spreads upward with great violence, shooting along his cheek to his temple, and over the whole side of his head, the pain being so violent as to make him cry out in great agony. It attacks him repeatedly in the course of the 24 hours, in paroxysms of several hours duration; and even during the intervals, the pain remains with very considerable severity. He has been subject to occasional attacks of the same kind, in an inferior degree, for 16 years, of shorter duration than the present, and with intervals of some weeks, and even many months at a time; and he has observed, that exposure to cold and wet weather very readily excites a return. The present fit of the disease came on about the middle of May last, without his being able to ascribe it to any occasional cause. Since which time, to the present day, his time has passed under constant severe pain, and part of every day under intense torment.

At present his pulse is natural, and his skin cool. His tongue is loaded with a thick membranous fur, in so far as it is visible, as the smallest motion of his tongue or lips, in attempting to speak, or take in food, is certain of exciting a paroxysm; in consequence of which deprivation, together with the want of sleep, his strength has become greatly impaired.

He has been following medical advice at home for six weeks past, during which time he has used laxatives freely, chiefly saline, with some doses of calomel; he has also had an emetic or two, which did not operate freely. These have been followed with carbonate of iron in considerable quantity, viz. one drachm

thrice a day for two weeks. Of late, this has been changed for the arsenic solution, taken freely without any benefit.

On the 5th of July, he was admitted a patient in the Dispensary here, and came to be under my care. It appearing quite certain, on examination, that his digestive organs remained loaded with an accumulation of morbid contents, and believing that the primary cause of his misery still existed there, notwithstanding the extensive evacuations which had been procured by the lenient purgatives already administered, it became necessary to have recourse to some more powerful remedy. Accordingly, with the concurrence of the other medical gentlemen, he was ordered to take the following bolus next morning. Calomel gr. viij. tart. antimon. gr. i. M. ft. bolus. By this dose he vomited a considerable quantity of dark-coloured corrupted bile, and had three very offensive stools. He slept a little in the succeeding night, and passed the next day with some mitigation of his complaint, in thus far, that although the lancinating pains shooting from his lip along his cheek and temple, were as frequent as ever, yet they were less severe, and he had no regular excruciating paroxysm.

The bolus to be repeated every other morning, also to receive an enema, with 50 drops of tinct. opii every night.

By the second and third doses, he vomited dark-coloured bile each day, and voided offensive stools, mixed with a great quantity of hard scybala. By the fourth and fifth doses, he continued to vomit unhealthy looking bile, mixed with viscid phlegm; he also passed offensive stools mixed with scybala as before. He is now much relieved, being able to speak, and to take food without exciting a fit of pain, and rests well in the night; his tongue is considerably cleaned from the thick fur, and he is able to walk about in his room. There are some slight returns of pain along the side of his face, but no regular paroxysm for eight days past. By the sixth and seventh doses, the discharges were less offensive, wearing a more healthy appearance; his tongue is clean, and his night rest natural; the occasional transient pains slight, and less frequent; is still gaining strength, being now able to walk out. July 29th.—Ordered to omit the mercurial bolus, to continue the sedative enema, and take pulv. cinchon. ʒi every twenty-four hours, in small doses, with an opening pill occasionally, if necessary. August 10th.—Continues better; is permitted to return home. Continue the p. cinchon. with i. gr. of opium every night, in place of sedative enema. September 1st.—Has used his medicine regularly; is much stronger, being now able to undertake easy work. Ordered to omit the cinchona, and use the following tonic electuary. Limat. ferri ʒi. Crem. tart. ʒiij. Pulv. cinchon. ʒiss. Pulv. zingib. ʒiss. Syr. commun.

3ij. ft. elect. A small tea-spoonful three times a day. September 15th.—Continues free from pain, and has acquired a very healthy appearance. October 2d.—Continues well. Dismissed. Kelso, October.

[Ed. Med. Surg. Journ.]

A Report has been made by Baron PERCY to the French Institute, upon a new instrument (*kystitome caché*,) for the extraction of the cataract, invented by Dr BANCAL. This report is altogether highly in favour of the invention, or rather the alteration of the instrument as formerly employed by LAFAYE, and described in the memoirs of the Academy of Surgery. The inconveniences of Lafaye's instrument were, that it was difficult to fix it steadily in the hand, from the roundness of the handle; it operated from below upwards, which rendered it less manageable; and there were no means of graduating or proportioning the length of the blade which should issue from the sheath: besides which, it required some degree of force to produce that effect, and consequently a vacillation was produced, highly necessary to be avoided among parts of so delicate a structure. These inconveniences are got rid of in M. Bancal's instrument, of which we lately presented our readers with a description.* The commissioners say that this instrument performs its office admirably. It is held like a writing-pen, and is as easily managed. 'We are persuaded, (they add,) that in all those cases where it is necessary to disengage the crystalline lens from all its attachments, to divide and to open the firm and thick capsule that confines it, no instrument can be superior to that of M. Bancal; the use of which will be established and extended by the result of some trials lately made at Paris, confirming the satisfactory account of those which took place at Bourdeaux.'—[Lond. Med. and Phys. Journ.]

Correspondence. Literary Notice. Intelligence.

[To the Editors of the New-England Journal of Medicine, &c.]

GENTLEMEN,

MANY physicians, and even other professional men have been surprised to see that some respectable members of the medical profession allow their names to be used in public, to

* *Revue Medicale*, Fevrier.—*London Med. and Physical Journal*, May.

recommend empirical or *quack medicines*. Probably, those who have been wrought on for this purpose, have not duly considered, that by the sanction of their names, they lead others to employ these medicines, not only in the cases where *they* have used them with advantage, but in all other cases for which they are recommended by the proprietors. These articles are of course employed by the ignorant and injudicious, without any regard to the constitution or the stage of disease, and must be vastly injurious on the whole, even if they are beneficial in any particular cases. If these medicines really possessed peculiar and exclusive virtues, there would be some little excuse for this proceeding; but it is hardly credible that a thoroughly educated physician, one who is versed, as he ought to be, in the virtues of the *materia medica* can have the weakness to believe that a good farmer, or an Indian, or an illiterate quack doctor will be likely to discover useful compounds which have escaped the researches of learned and experienced practitioners; and in fact it is well known that these secret medicines, after having imposed on the public long enough to enrich the impostor, have uniformly fallen into obscurity. I speak with reference to what has happened in this nation.—The practice I would reprobate, has not yet extended to this part of the country, so far as I know; but as it has been adopted without any appearance of hesitation, by physicians of some eminence in other places, there is no knowing how soon it may be taken up here. The public are *gullible* enough, in all that relates to the mysteries of medicine, without the aid of regular and eminent practitioners to encourage and propagate newly invented compounds: even physicians themselves, I am sorry to say, are not wanting in credulity as to every thing new, and did my time permit, I might perhaps favour you with some remarks, on the eagerness, with which the faculty fall upon new remedies, and the indiscriminating ardor, with which they apply them to all cases.

I have been led to make these remarks at this time, by noticing in a New-York paper, an article in favour of a medicine called 'Swaim's Panacea;' in which, among other lofty assertions the Editor of the paper says, 'We are not so great strangers to science as not to know, that the virtues of many of the most valuable articles, used as medicine, were discovered by individuals, who had no pretensions to scientific knowledge; and that *most, if not all of them*, owe much of their importance to the classic names which they have received. Strip medicine of the mystery which hangs over it, in consequence of its prescriptions being couched in a dead language, and we are afraid it would no longer carry with it that imposing character which it now possesses.' This is

quite admirable; the defender of a *secret* medicine finding fault with the mysteries of the latin language!! This writer concludes with saying, 'If after these various tests and recommendations, there should remain any incredulity, we shall be inclined to think, that those who persist in endeavouring to discredit the Panacea have returned to the state of Adam's ignorance, not knowing how to distinguish good from evil.' I am far from wishing to say that the Panacea is a medicine destitute of virtues; but this I will say, that from the experiments I have made with it, the same effects may be produced by a due administration of a solution of corrosive sublimate, alias, muriate of mercury, alias, oxymuriate of mercury, and this for one sixth part of the expense of this extravagant nostrum. Z.

DR Horner, Adjunct Professor of Anatomy in the University of Pennsylvania, has just published a series of 'Lessons in Practical Anatomy, for the use of Dissectors,' in one octavo volume. The arrangement differs from that usual in such works. From the slight examination we have had opportunity to give it, we have reason to believe it to be a meritorious production, and likely to be generally employed in our medical schools.

A man at Brookline, five miles from Boston, employed as a labourer by the Rev Mr Coleman, while drinking from the nose of a pump, felt that he swallowed some hard substance. He was soon after seized with a pain in the stomach, which distressed him constantly. He thought he felt an internal movement, and occasionally he vomited blood and mucus. At the end of fourteen days, he was seized with a violent fit of vomiting, brought up a quantity of blood, and in the midst of it a *living beetle*. He was immediately relieved of his pain. The beetle died a few hours after, and was brought by the Rev Mr Coleman to Dr Warren. It is more than an inch long and proportionally large. The man has since been as well as common.

BOYLSTON PRIZE QUESTIONS.

AT a meeting of the Boylston Medical Committee of Harvard University, holden at the Medical College, in Boston, August 13, 1823, it was voted:

That the Boylston Medal, or fifty dollars, be awarded to the author of a dissertation, '*On the functions of the extreme capillary vessels in health and disease;*' who was found to be WILLIAM SWEETSER, M. D. of Sherburne, Mass.

No dissertation was offered on the question, 'What textures of the body when punctured or lacerated, are liable to bring on the disease called Tetanus.'

The following constitute the subjects for the prize dissertations for 1824, namely :

1. On the diseases resembling Syphilis, and the best modes of treating such diseases.

2. How long may the human body remain immersed in water without extinction of life, and at what period after immersion will it be useless to employ restorative means ?

Dissertations on these subjects must be transmitted (post paid) to DAVID TOWNSEND, M. D. of Boston, on or before the first day of April, 1824.

The subjects of the prize dissertations for 1825, are the following, and the dissertations upon them are to be transmitted as above mentioned, on or before the first day of April, 1825 :

1. To what extent has the Vaccine disease been found a preventive of the Small-pox ?

2. On the *History* of the Autumnal Fevers of New-England ?

The author of the best dissertation upon each of these subjects, will be entitled to the premium above mentioned. Each dissertation must be accompanied with a sealed packet, on which shall be written some device or sentence, and within the author's name and place of residence. The same device or sentence is to be written on the dissertation to which the packet is attached.

All unsuccessful dissertations are deposited with the Secretary of the Committee, from whom their authors may obtain them, if called for within one year after they are received.

J. GORHAM, *Secretary*.

MEDICAL GRADUATES OF HARVARD UNIVERSITY, 1823.

Warren Abbot,	<i>De Acido Hydro-Cyanico.</i>
Edwin Adams,	<i>De Febre Syncho.</i>
Benjamin Barrett, A. M.	<i>De Motu Sanguinis.</i>
Joel Burnet,	<i>De Pneumonia.</i>
Charles W. Chauncy, A. M.	<i>De Vasis Absorbentibus.</i>
Elijah Colburn,	<i>De Canthari Vesicatorio.</i>
Amos Currier,	<i>De Colica.</i>
Edward Dickenson,	<i>De Dysenteria.</i>

* The writers on this subject are not expected to discuss the *Causes* or *Modes of Treatment* of such fevers, as the latter will constitute questions for future dissertations.

John C. Hayden,	<i>De Febre Puerperarum.</i>
Stephen Huse,	<i>De Dysenteria.</i>
Theodore Kitteridge,	<i>De Dyspepsia.</i>
Ingalls Kitteridge, jr.	<i>De Vita Sanguinis.</i>
Prescot Lawrence,	<i>De Hydrope.</i>
D. P. Pierce,	<i>De Asthmate.</i>
Ebenezer Woodward, A. B.	<i>De Phthisi Pulmonali.</i>

The Honorary Degree of Dr of Medicine was conferred on the following gentlemen :

Dr John Bartlett of Roxbury, Dr Nathaniel Miller of Franklin, Dr William Whitridge of Tiverton, (R. I.)

HARVARD UNIVERSITY.—MEDICAL LECTURES.

The Medical Lectures in Harvard University, will begin at the Massachusetts Medical College, Mason Street, Boston, the third Wednesday in November.

Anatomy and Surgery,	. . .	Dr Warren.
Chemistry,	. . .	Dr Gorham.
Materia Medica,	. . .	Dr Bigelow.
Midwifery and Medical Jurisprudence,	. . .	Dr Channing.
Theory and Practice of Physic,	. . .	Dr Jackson.

To Correspondents.

The following articles have been received, and will appear in the next Number :
On the Internal use of Spirit of Turpentine in Bowel Complaints of Summer and Autumn. By J. H. Flint, M. D.

Cases of Spotted Fever. By Dr Green.

A Case of Hydatids in the Brain. By William Sweetser, M. D.

Description of Four Native Species of the Genus Cantharis. By T. M. Harris, M. D.

Case of Tetanus. By John Phillips, jr. M.D.

ERRATA.

We are requested to publish the following errata.—ED.

Page 21, line 16th, for '*deliquescence*,' read '*deaquestence*.' Page 22, line 2d, after word '*drachm*,' a comma instead of a period.

INDEX.

A.

	Page
Acetate of Morphine	84
Annual Report of the Liverpool Institution for Diseases of the Eye	107
Adhesive Plaster	109
Aneurism cured by ligature of External iliac artery	225
Apoplexy, case of by C. G. Adams, M.D.	234
Abortion, case of by J. Randall, M.D.	243
Archives Générales de Médecine	305
Amputation of Lower Jaw	308
Arsenic, poisoning by	319
Abortion, remarks on	324
Auscultation, application of, to the Study of Pregnancy	104
Address to Boylston Medical Society, by E. Hale, Jr. M.D.	113
Artificial pupil	215
Answer to Dr Hazeltine	121

B.

Bacot, Mr remarks on use of mercury, &c.	76
Bronchocele	86
Beclard's Additions to Bichat's General Anatomy	219
Broughton's, Mr Case of Lateral Curvature of the Spine	89
Barlow, J. Surgeon, Essays on Surgery and Midwifery	40
Bigelow's, Dr J. Case of Ruptured Uterus	365
Bayley's Report on Yellow Fever	381
Barlow's, Dr E. Case of Laceration of the Gastrocnemius Muscle	431
Boylston Prize Questions	438

C.

Chyle-like fluid, vomiting of	4
Cough, habitual case of	76
Corrosive Sublimate	85
Croup	86
Carbuncle, treatment of by escharotics	90
Chronic Catarrh	99
Croton Tiglium	106
Calculus, large	107

Communication between the Auricles of the heart	109
Cold affusion, use of in affection of the Brain, by S. Webber, M.D.	110
Clinical Remarks, No. III. by A. L. Peirson, M.D.	129
Clarke's, C. M. Observations on Diseases of Females, &c.	135
Comparative View of Sensorial and Nervous Systems in man and animals, by J. C. Warren, M.D. &c.	171
Curvatures and Distortions of the Spine, Essay on	177
Compound Fractures, by J. Dunn, Esq.	195
Chronic inflammation of the Uterus	207
Colica Pictonum, Report on	255
Cooper's, Sir A. Treatise on Dislocations and on Fractures of the Joints	275
Clinical Essay on Iodine	295
Carbonate of Iron in Tic Douloureux	317
Cerebellum and Cerebrum, Experiments on	325
Calculi in the Bladder, means of breaking down	331
Circular of Medical School in Boston	334
Convulsions, Puerperal	326
Communication between the stomach and bladder	329
Chronic ulcers	381
Contraction of the Stomach, with dissection, by J. Gorham M.D.	349
Channing's. Dr W. Case of Syphilitic Ulceration of Larynx	350
Clinical Remarks, No. IV. By A. L. Peirson M.D.	357
Chardel, Dr F. Scirrhus of the Stomach, Remarks on	368
Cooper's, Sir A. Treatise on Dislocations and Fractures of the Joints	415
Correspondence	436

D.

Dissertation on Treatment of Morbid Local Affections of Nerves, by J. Swan	23
Domestic Medicine, a Treatise on by Robt. Thomas, M.D.	33
Description of an instrument for the extirpation of the mouth and neck of the Uterus in carcinoma, &c.	74
Digitalis, Effects of an over dose of	81
Disease in the Larynx, case of, &c.	87
Dropsy, case of, by S. W. Williams, M.D.	247
Diseased Spleen, case of	243
Dislocations and Fractures of the Joints, Sir A. Cooper's Treatise on	415

E.

Erysipelas of the head treated by Bark	132
Eberle, Dr on the Materia Medica and Therapeutics	219

F.

Fœtus, Bones of voided by the rectum	330
Fevers and other Medical Subjects, Essays on by Drs Miner and Tully	387

G.

Globules of Blood, size and shape of in different Animals .	108
Gorham's, Dr J. Cases in Morbid Anatomy	344

H.

Hazeltine's, Dr R. Answer to the Editors	15
Hæmorrhoidal Tumour	130
Hernia, Memoir on by A. Scarpa	306
Hydrocyanic Acid	331
Hydrophobia from the bite of a Raccoon, by G. Russell M.D.	363
Harvard University.—Medical Lectures	439

I.

Iritis, Dr Smith on	197
Inguinal Aneurism	215
Iodine, Effects of in Bronchocele and Scrophula	295
Iron, carbonate of, in Tic Douloureux	317
Incubation, Experiments on	104
Injuries of the Head, cases by A. L. Peirson M.D.	357
Intelligence	436

J.

Jackson's, James M.D. &c. case of Tubercles in the chest and abdomen terminated by hydrocephalus internus	225
Jenner's, Edward, M.D. &c. &c. Letter to Charles H. Parry, M.D. &c. on Artificial Eruptions in certain diseases	265

K.

Knee Joint, on Injury of	129
Knee Joint, Case of Disease of, by S. Webber M.D.	361

L.

Larrey's Baron, Memoir on Partial Tetanus	77
Larynx, case of disease of, mistaken for Stricture of the Œso- phagus	87

Literary Notices	112. 216. 336. 438
London Medical and Physical Journal	310. 311. 436
Laceration of the Gastrocnemius Muscle, case of by E. Barlow, M.D.	431

M.

Morbid Anatomy of the vascular system with Red Blood	7
Morbid local affections of nerves by J. Swan Esq.	23
Medico-Chirurgical Transactions	60
Mercury, use of in sloughing and Phagedenic ulcers	76
Memoir on Partial Tetanus	77
Morphine, Acetate of	84
Moir on Puerperal Fever	195
Massachusetts General Hospital, operations in	215
Memoir on Hernia of the perineum	306
Morbid Anatomy, cases by J. Gorham M.D.	344
Miner, Dr T. and Tully, Dr W. Essays on Fevers, &c.	387
Mathews, Mr. W. case of Sphacelus from injury	429
Medical Graduates of Harvard University, 1823	439

O.

Opium and other poisons, the removal of by the common Syringe	91. 130
Opium, cold affusion in the treatment of poisoning by	92. 94
Opium, most efficacious means of remedying effects of	94
Opium, cases of poisoning by	321
Operation of cleft Palate	106
Obituary	111
Oleum Terebinthinæ, Tetanus cured by	318
Officers of the Massachusetts Medical Society—1823	332

P.

Parsons's, Dr T. W. case of renewal of two Teeth	1
Purpura Hemorrhagica, case of	83
Puerperal Fever	195
Pathological Anatomy of the human brain and its membranes	200
Painful affection of all the nerves of the face, cured by repeated operations	216
Petrification in the Corpora Striata	103
Phlegmatic Dolens Puerperarum, case of	258
Phthisis Pulmonalis, case of	261
Puerperal Convulsions	326
Population of Russia, &c.	328

Pneumonia, case of with dissection by J. Gorham, M.D.	348
Peirson's, Dr A. L. Clinical remark,s No. IV.	357

R.

Rudiments of a Fœtus in the Testicle	105
Russia, Population of	328
Rheumatism, case of acute, translated to the heart	323
Russell's, Dr G. case of Hydrophobia	363
Ruptured Uterus, case of by J. Bigelow, M.D.	365
Rheumatism of the Head and Tic Douloureux, cases by J. Taylor	432

S.

Sympathy and Sensation	105
Singultus, case of	131
Spleen, case of diseased	243
Suppression of urine successful treatment of	101
Stramonium, effects of over dose of Tincture of	253
Syphilitic Ulceration of the Larynx, by W. Channing, Jr. M.D.	350
Schirrus of the Stomach, by F. Chardei, M.D.	368
Sphacelus from injury, case by W. Mathews	429

T.

Teeth, Renewal of at a late period of life	1
Tetanus, Partial, memoir on	77
Tar Vapour, remarks on	95
Testicle, Rudiments of fœtus in	105
Tubercles in both chest and abdomen, case of	230
Tetanus, case of, cured by Ol. Terebinthinæ	318
Tic Douloureux, use of Carbonate of Iron in	317
Transudation	329
Tubercles of Mucous Membrane of the Larynx, and part of the Pharynx, with Phthisis pulmonalis, by J. Gorham M.D.	344
Tic Douloureux and Rheumatism of the Head, cases by T. Taylor, F.R.C.S.	432
Tic Douloureux, case of successfully treated by Purgatives	434

V.

Vomiting of Chyle-like fluid, case of	4
Vaccine Disease, Remarks on Mr Gilder's case of	91

W.

Ware, Dr J. Remarks upon the Study of Pathology . . .	337
Webber's, Dr S. case of Disease of Knee Joint . . .	361
Wilson's, Dr A. case of Tic Douloureux, &c. . .	434

Y.

Yellow Fever, Dr Bayley's Report on . . .	381
---	-----



